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National builder construction details.Se

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The National Builder Construction Details

NATIONAL BUILDER

CONSTRUCTION DETAILS

Seventy-two Plates of Architectural Details Representing
Problems of Every-Day Practice in Original Drawings
and Selections from a Variety of Authoritative
Sources, the Whole Redrawn to a Uniform
Style and Printed Directly from
the Original Etchings.

TRADEPRESS
PUBLISHING CORPORATION
CHICAGO
1920

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Tradepress Publishing Corporation
542 South Dearborn Street
Chicago, Illinois

PREFACE

THIS book is not an attempt to impose dogmatic ideas of detailing on its readers. The details have been gathered from widely separated portions of the country,—North, South, East and West,—with a sincere attempt to serve all sections without discrimination. Therefore, it should be remembered that local custom largely determines the methods of building construction and that methods that are in common use in one locality may be considered unduly expensive or complex in others. Climatic and other conditions also exert their influence. Almost any of the details shown, however, may be readily taken as a basis for other designs and may be modified or elaborated to suit individual requirements.

It is impossible for this or any other book to fully cover the many ramifications of building construction. Neither shoddily cheap nor highly expensive methods have been illustrated. Only features adapted to moderate sized buildings,—which form a vast majority of construction work,—are included. It is intended to issue revised editions of the book from time to time as the need arises to bring methods up to date, and to include therein such features as are omitted in this edition.

The details are new to publication in almost every instance and with the exception of the contents of some half-dozen plates it is believed that they have never before been presented. For the purpose of obtaining uniformity the writer personally drew most of the plates, and in every case checked them carefully; if mistakes escaped him they were not due to carelessness nor to lack of realization of his responsibility.

The purpose of the book is twofold. First, it is hoped that the details will prove of daily assistance in solving problems of building construction both at the drawing board and in the field. A mere scanning of the contents or a blind following of the examples will not make the various applications of each plate fully evident. That is, a careful examination will show that hundreds of items that are interchangeable and adaptable to other problems are contained on the plates. No one has yet invented a substitute for the personal study that is required of the seeker for knowledge.

The other purpose of this book is to stimulate criticism. New methods of construction and the use of materials are constantly adding to the completeness of our knowledge of building construction. In many cases improved methods originated in one section do not become generally known for years; thus involuntarily withholding valuable knowledge from the country at large. Every reader of this book is capable of suggesting improvements in the contents of future editions, and is hereby appointed a committee of one to improve or add to the methods shown herein. This appointment applies to all members of the building profession, including not only architects, contractors, builders, and materialmen, but each and every one of their assistants. The suggestions may concern methods shown in their book or may cover features not included. They may be small scale blue-prints or rough sketches with the explanations written in. The principal value lies in the idea behind the design.

The importance of individual cooperation in making future editions of this book worth while cannot be too strongly stressed. Every one of us is dependent on others for his knowledge and to pass along the information is a duty, not a choice. Suppose each man from the beginning had withheld his bit of knowledge from the community at large. Can a skyscraper or even the humblest of modern buildings be imagined as possible under such circumstances? It is your duty to send in details as interest payments on the vast debt which you owe to the millions of unselfish men whose interchange of ideas for thousands of years has made our every possession possible.

The writer wishes to express his gratitude to the architects, builders, contractors, materialmen and others who so freely gave their assistance during the preparation of the plates. If the book falls short of its aim it will not be due to selfishness nor lack of cooperation on their part.

November, 1920.

JIM T. POMEROY,
Associate Editor National Builder.

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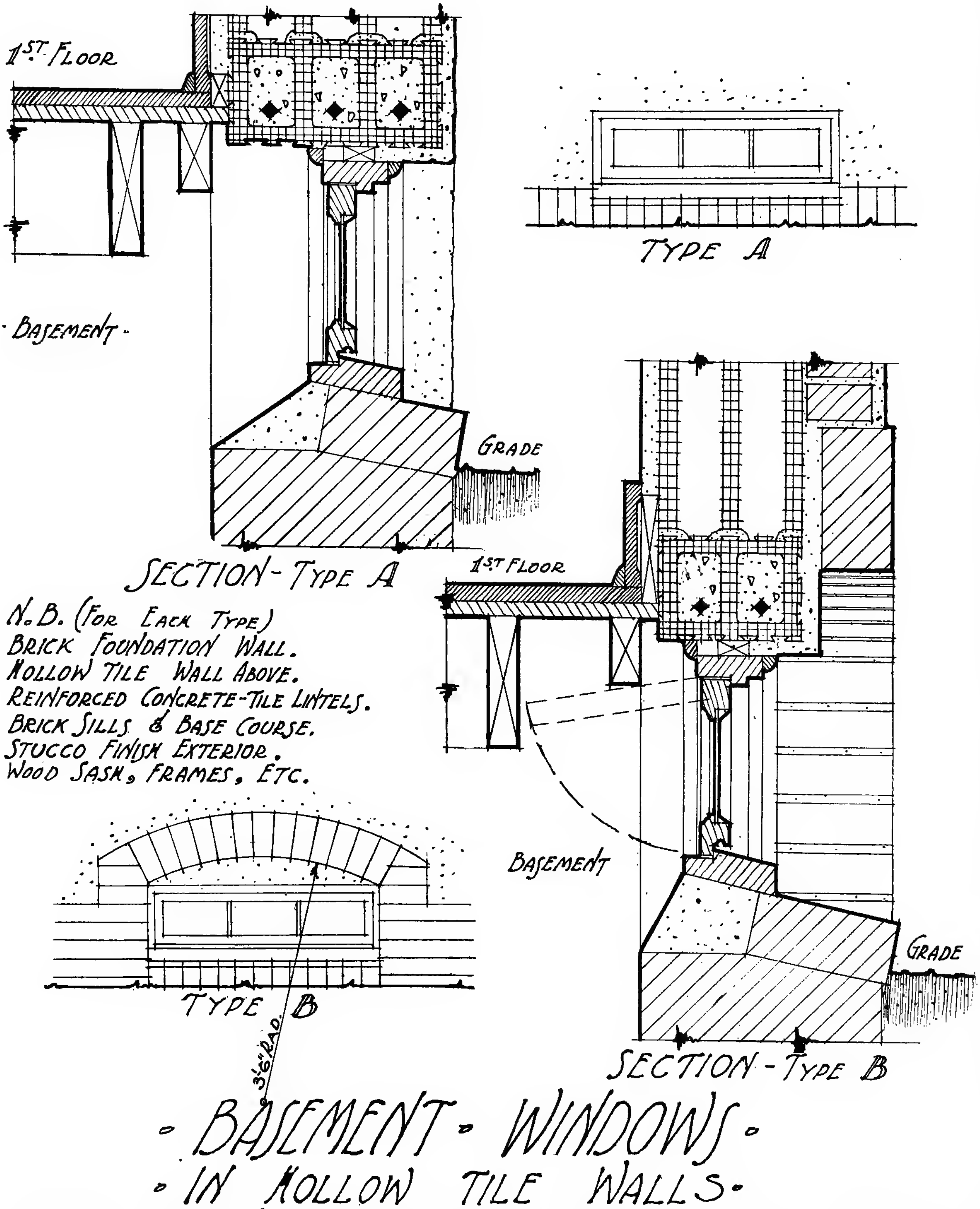


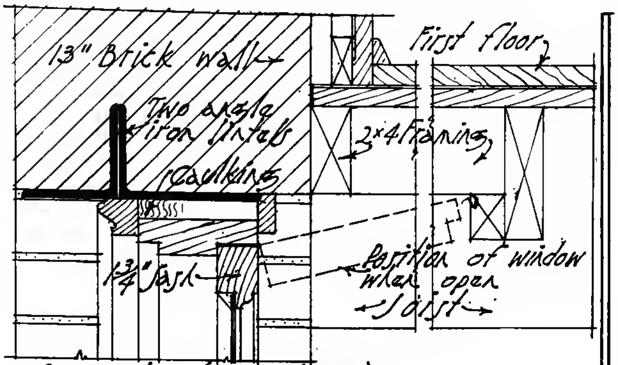
N. B. (FOR EACH TYPE)
BRICK FOUNDATION WALL.
HOLLOW TILE WALL ABOVE.
REINFORCED CONCRETE-TILE LINTELS.
BRICK SILLS & BASE COURSE.
STUCCO FINISH EXTERIOR.
WOOD SASH, FRAMES, ETC.

- BASEMENT - WINDOWS -

- IN HOLLOW TILE WALLS -

CHICAGO HOUSING ASSOCIATION - CHAS S. FROST, ARCH'T.

1/2 Inch to 1 foot, Sketches - - - SCALES - - - - Sections, 1 1/2 Inches to 1 foot



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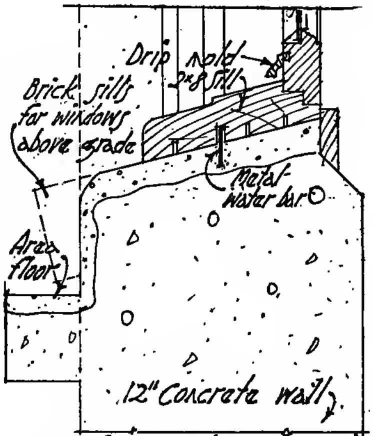

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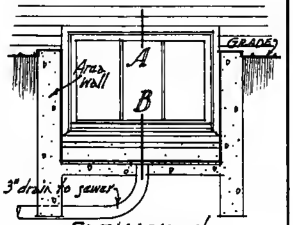
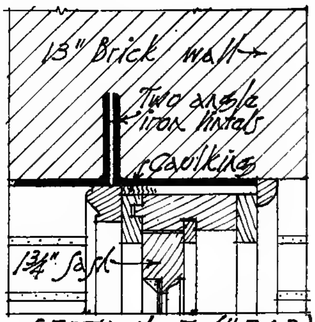


ELEVATION



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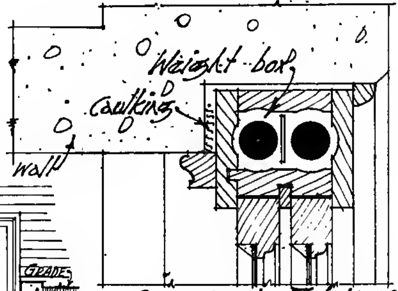

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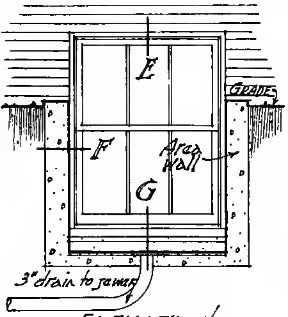

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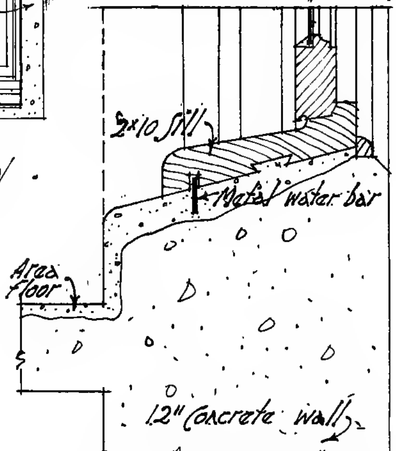

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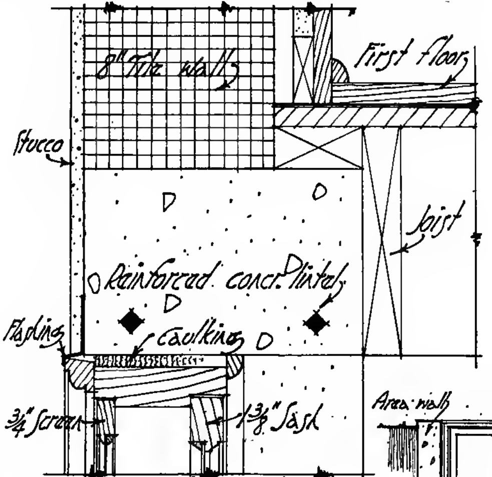

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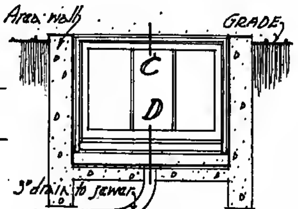

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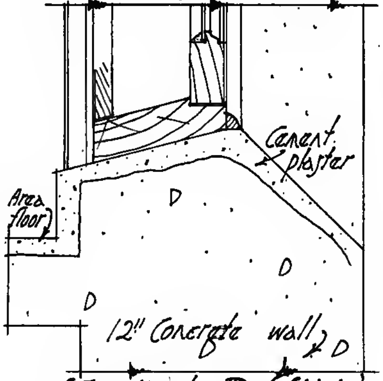

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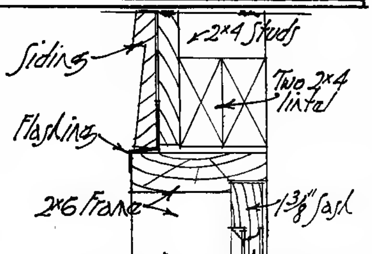

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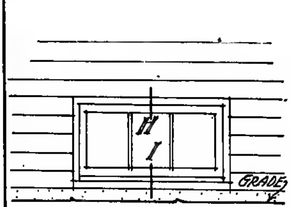

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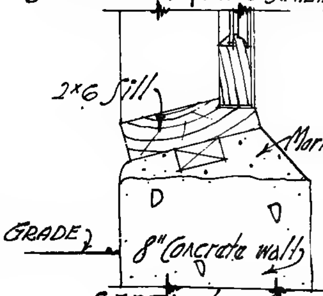


SECTION I (SILL)

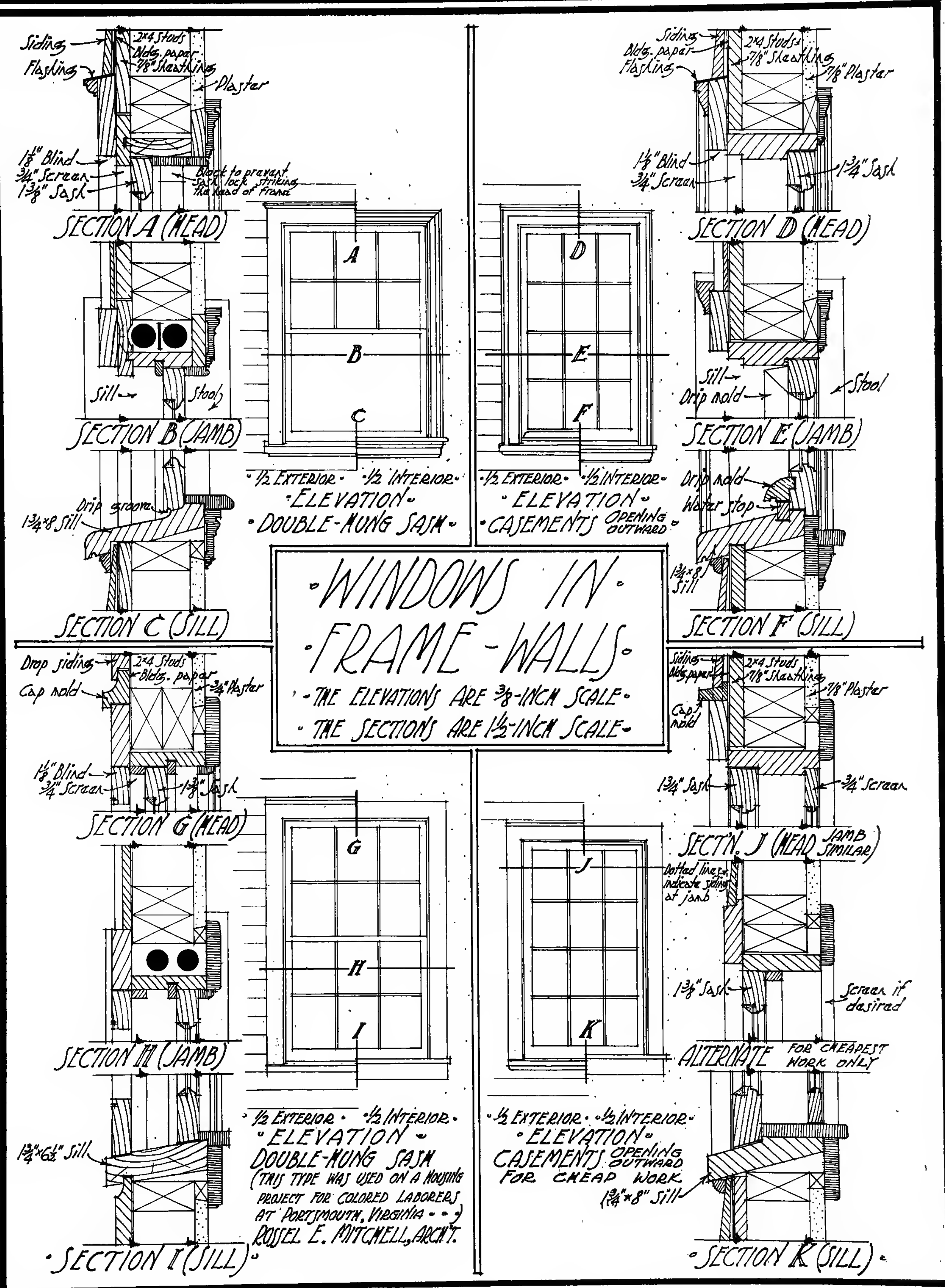
BASEMENT WINDOWS

THE ELEVATIONS ARE ¼-INCH SCALE
THE SECTIONS ARE 1½-INCH SCALE

WINDOWS IN FRAME-WALLS

THE ELEVATIONS ARE 3/8-INCH SCALE

THE SECTIONS ARE 1½-INCH SCALE

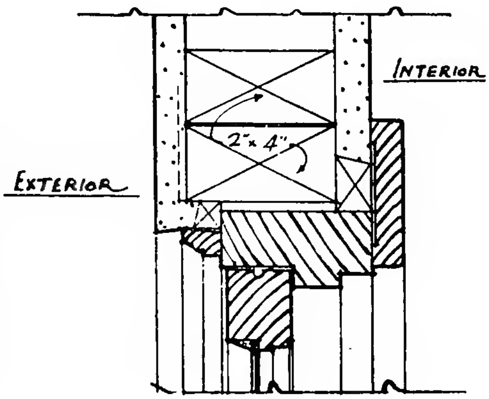


½ EXTERIOR · ½ INTERIOR
ELEVATION
DOUBLE-HUNG SASH

½ EXTERIOR · ½ INTERIOR
ELEVATION
CASEMENTS OPENING OUTWARD

½ EXTERIOR · ½ INTERIOR
ELEVATION
DOUBLE-HUNG SASH
(THIS TYPE WAS USED ON A HOUSING PROJECT FOR COLORED LABORERS AT PORTSMOUTH, VIRGINIA)
ROSSEL E. MITCHELL, ARCH'T.

½ EXTERIOR · ½ INTERIOR
ELEVATION
CASEMENTS OPENING OUTWARD
FOR CHEAP WORK



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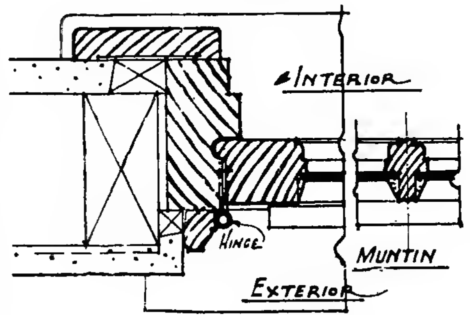
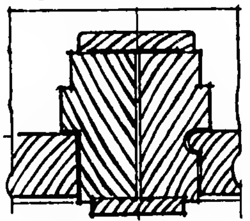
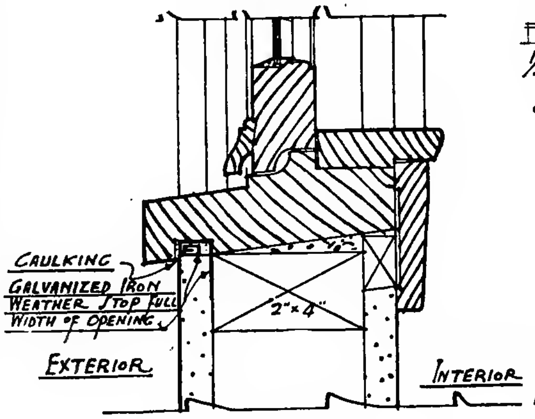


JAMB



MULLION



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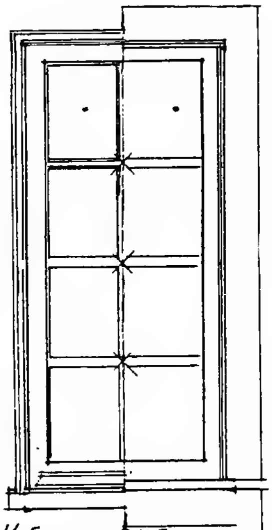
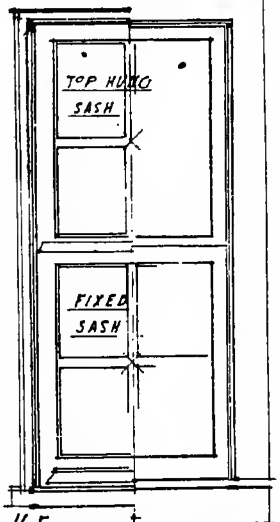


½ EXTERIOR ½ INTERIOR
REGULAR CSMT.



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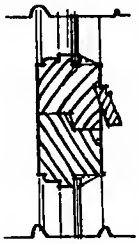
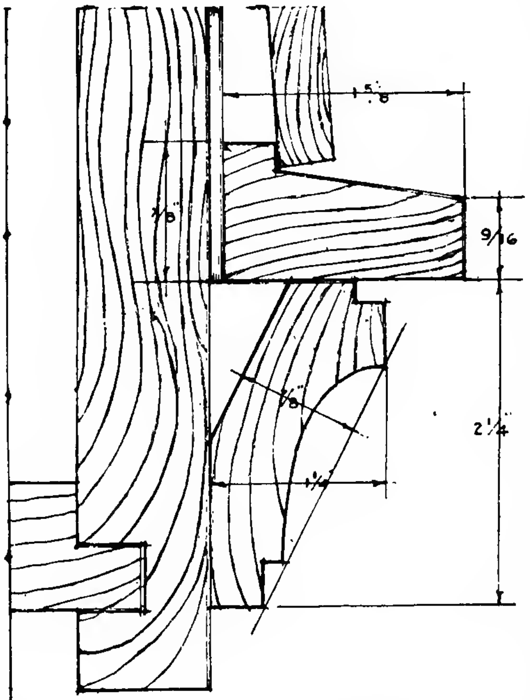
SPECIAL CSMT.



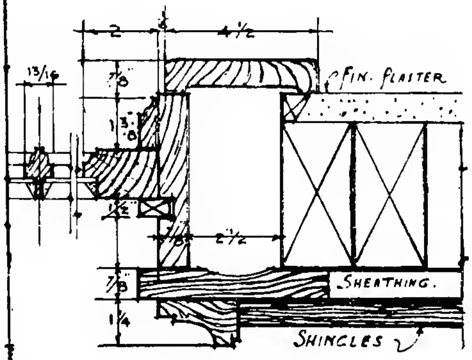
MEETING RAIL FOR SPECIAL CSMT.

CASEMENTS FOR STUCCO & SHEATHING BOARD

SCALE 0 2" 4" 6" 8" 10" 12"



DETAIL OF HEAD FOR D.H. WINDOWS (EXTERIOR)



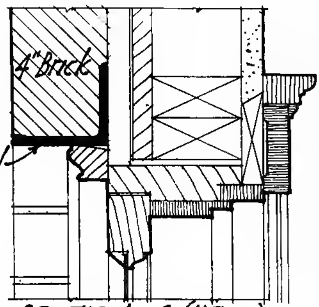
JAMB

DOUBLE-HUNG FOR SHINGLES OR SIDING.

SCALE 0 2" 4" 6" 8"

WINDOWS IN FRAME WALLS

ONTARIO HOUSING COMMITTEE



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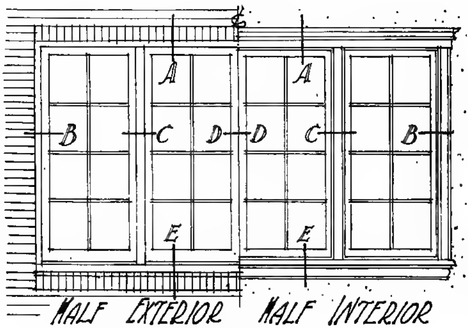
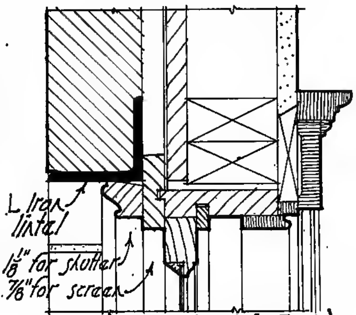


HALF EXTERIOR HALF INTERIOR
CASEMENTS
¼-INCH SCALE



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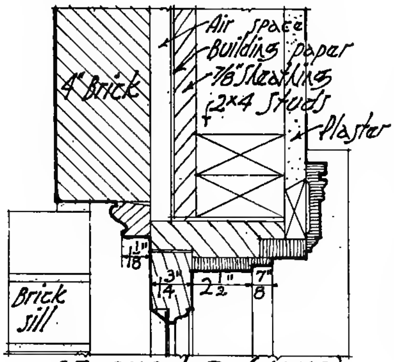

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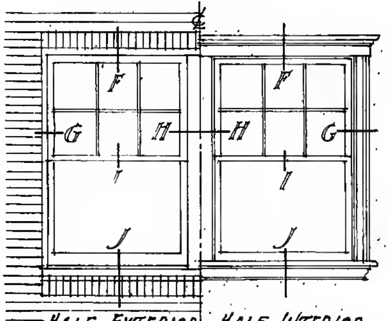
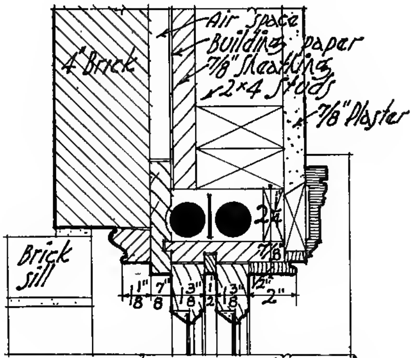


HALF EXTERIOR HALF INTERIOR
DOUBLE HUNG
¼-INCH SCALE



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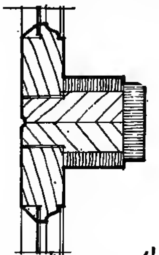
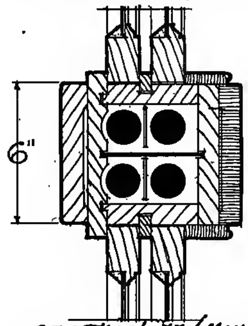


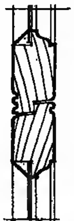
SECTION C (MULLION)



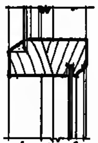
SECTION H (MULLION)

WINDOWS FOR BRICK VENEERED FRAME WALLS

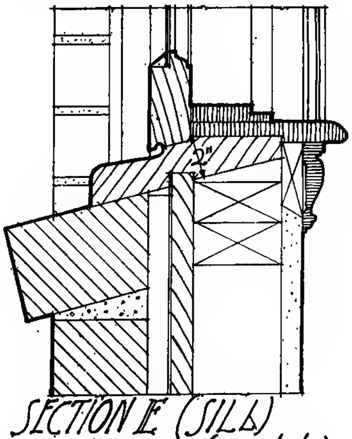
· 1½-INCH SCALE ·



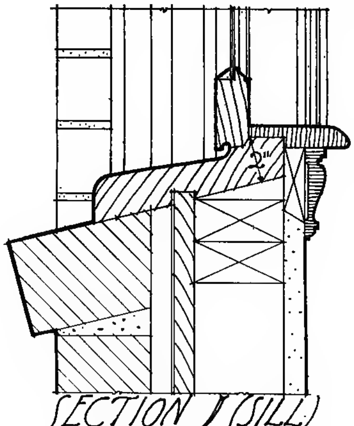
SECTION D (MEETING STILE)



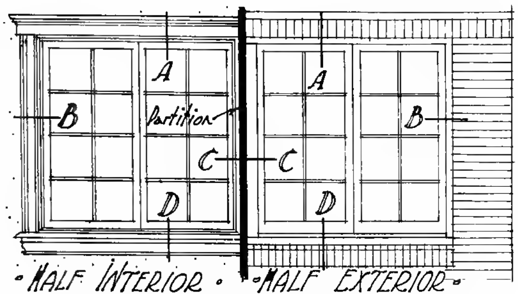
SECTION I (MEETING RAIL)

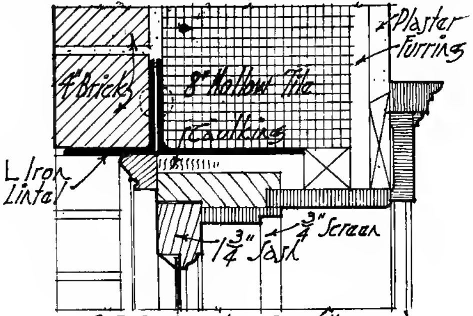


SECTION E (SILL)
CASEMENTS (OPENING OUT)

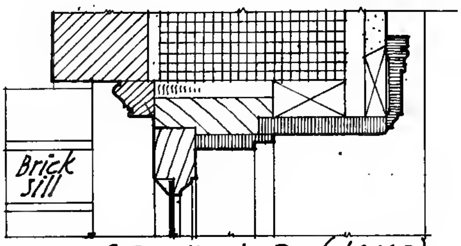


SECTION J (SILL)
DOUBLE HUNG

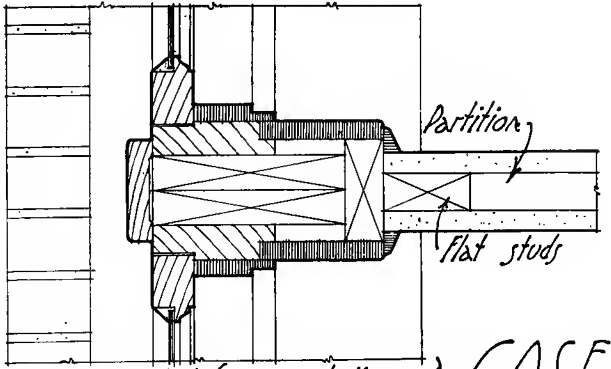




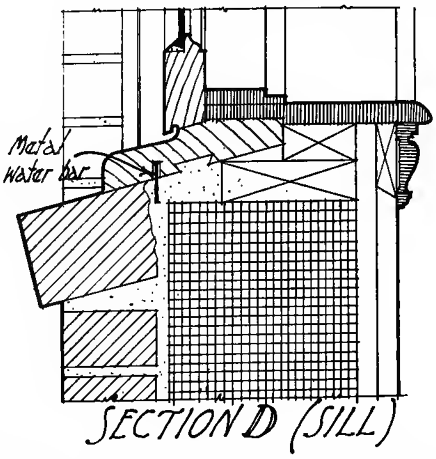
SECTION A (HEAD)



SECTION B (JAMB)



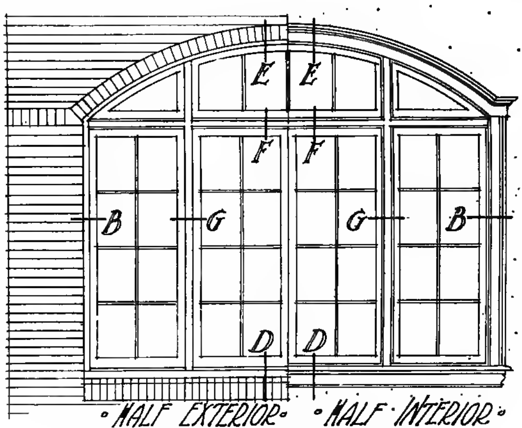
SECTION C (PARTITION MULLION)

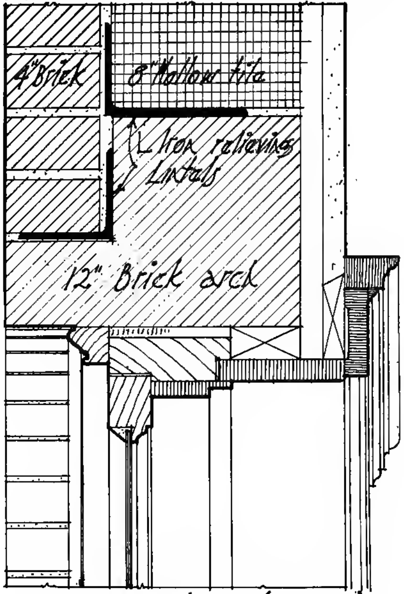


SECTION D (SILL)

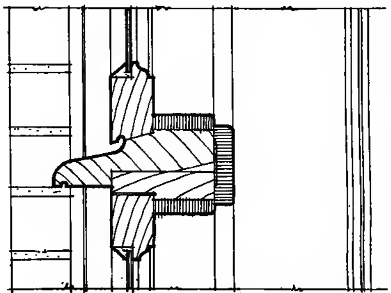
CASEMENTS OPENING OUT. FOR BRICK VENEERED HOLLOW TILE WALLS

1½-INCH SCALE·

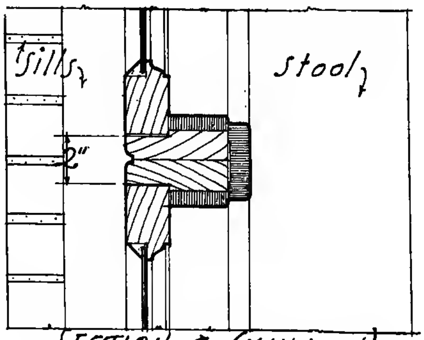




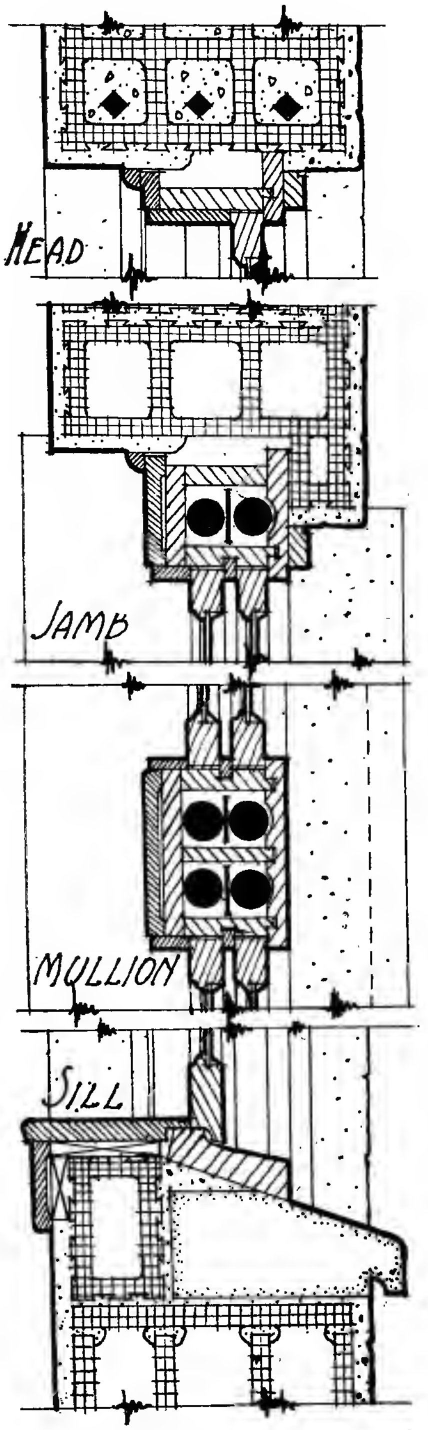
SECTION E (HEAD)

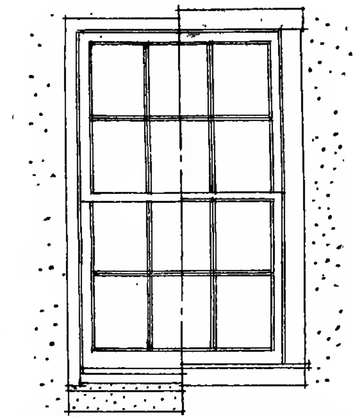


SECTION F (TRANSOM BAR)

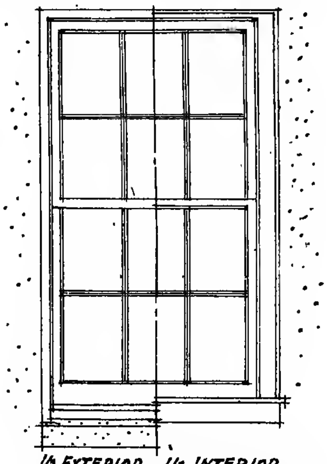


SECTION G (MULLION)





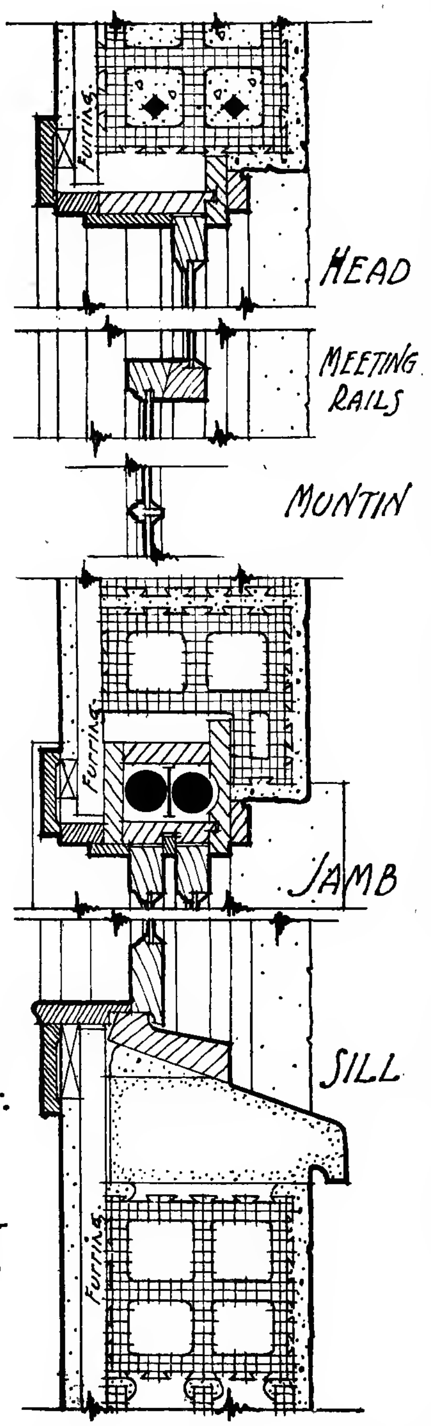
SKETCH OF 2ND STORY WINDOWS



SKETCH OF 1ST STORY WINDOWS

N.B.
HOLLOW TILE WALLS; STUCCOED.
REINFORCED CONCRETE-TILE LINTELS.
STONE SLIP SILLS.
WOOD SASH, FRAMES, ETC.

INTERIOR PLASTER APPLIED DIRECT TO 12" WALLS; 8" WALLS FURRED, LATHED & PLASTERED.



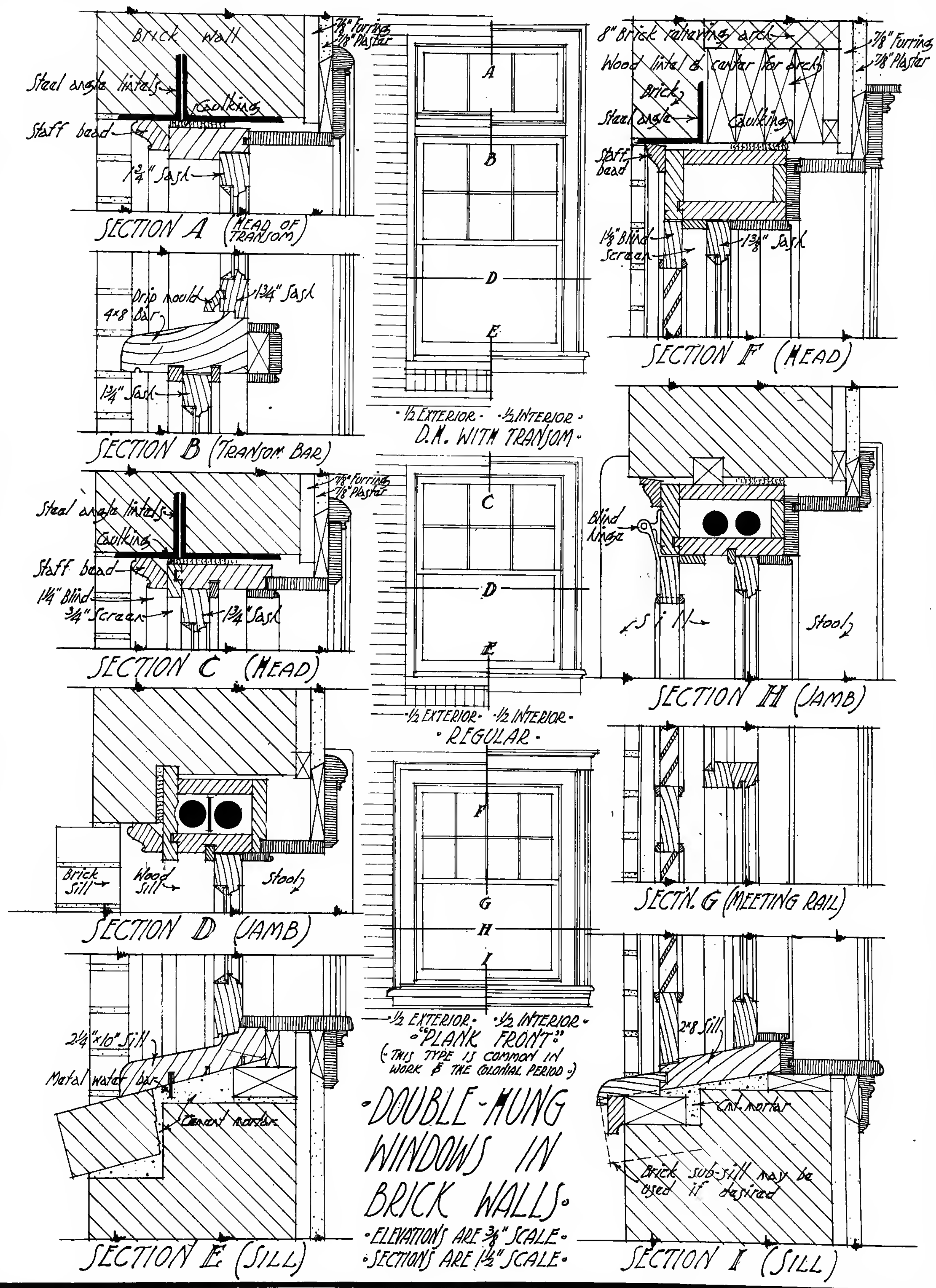
• SECTION • 1ST STORY • (12" WALLS) •

• SECTION • 2ND STORY • (8" WALLS)

• DOUBLE • HUNG • WINDOWS •
• IN HOLLOW TILE WALLS •

CHICAGO HOUSING ASSOCIATION • CHAS. S. FROST, ARCH'T.

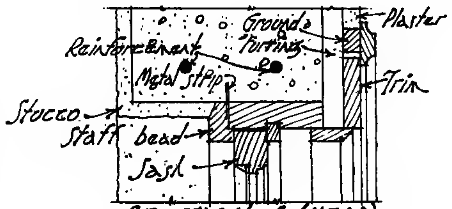
3/8 Inch to 1 foot; Sketches • • SCALES • • • Sections; 1½ Inches to 1 foot.



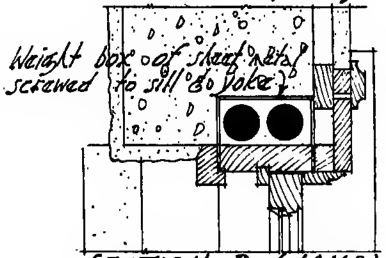
·DOUBLE-HUNG WINDOWS IN BRICK WALLS·

·ELEVATIONS ARE 3/8" SCALE·
·SECTIONS ARE 1 1/2" SCALE·

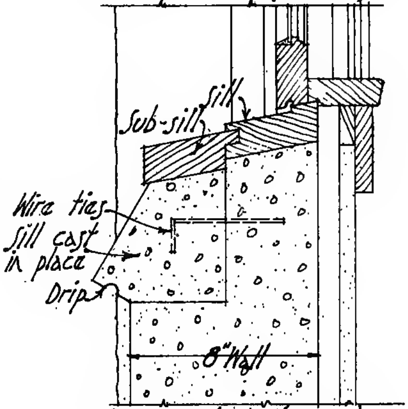
DOUBLE HUNG WINDOWS FOR MONOLITHIC CONCRETE WALLS



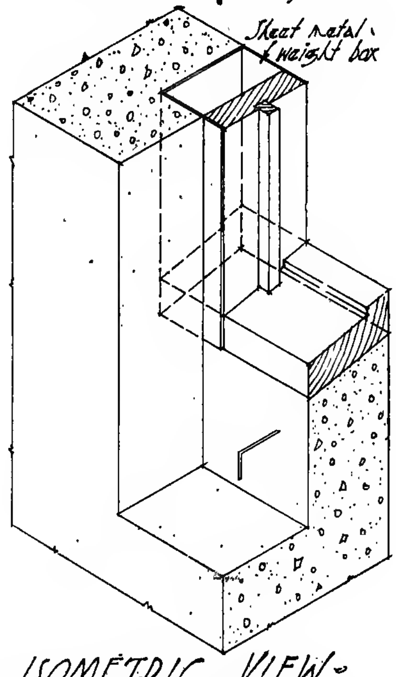
SECTION A (HEAD)



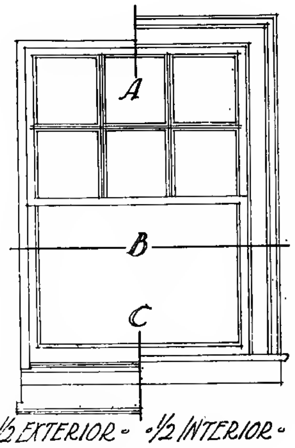
SECTION B (JAMB)



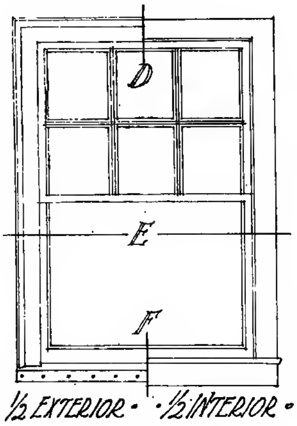
SECTION C (SILL)



ISOMETRIC VIEW
SHOWING WEIGHT BOX & WOOD SILL
FOR TYPE 1
(THIS TYPE OF FRAME WAS ORIGINATED BY MILTON DANA MORRILL, ARCHITECT)

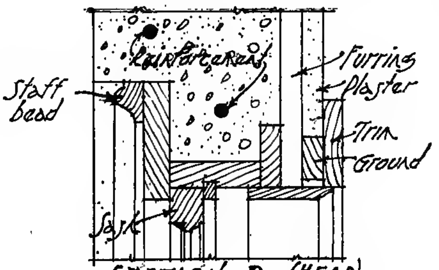


TYPE 1

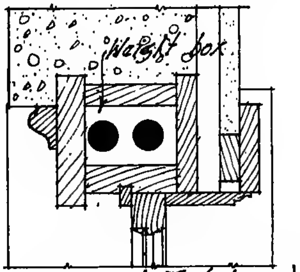


TYPE 2

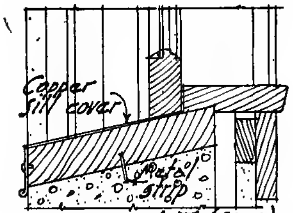
ELEVATIONS



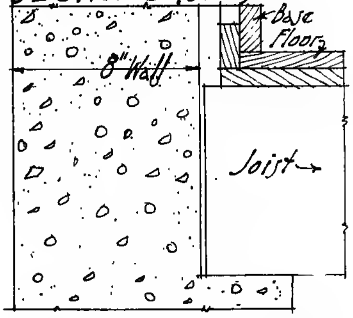
SECTION D (HEAD)



SECTION E (JAMB)

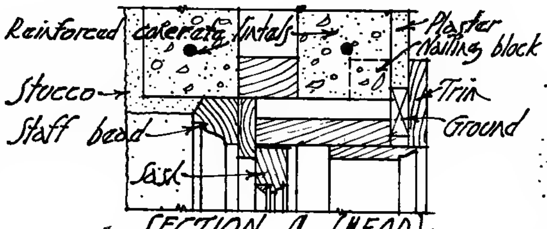


SECTION F (SILL)

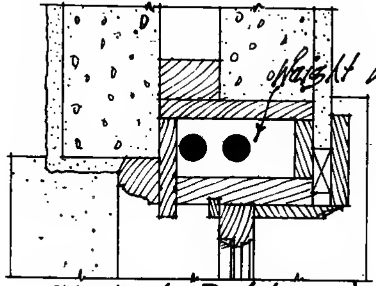


WALL AT FLOOR
FOR TYPE 2

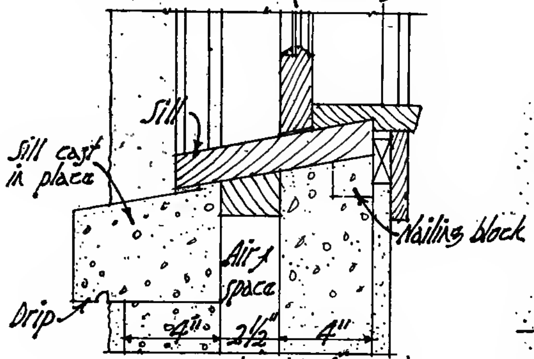
THE ELEVATIONS ARE ⅜-INCH SCALE
THE DETAILS ARE 1½-INCH SCALE



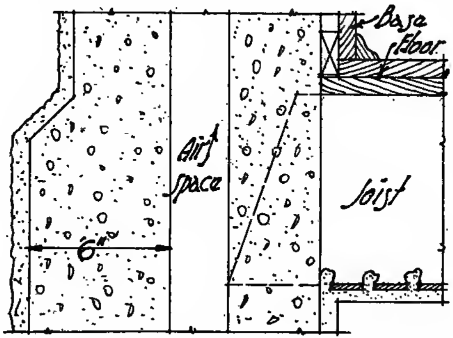
· SECTION A (HEAD) ·



· SECTION B (JAMB) ·

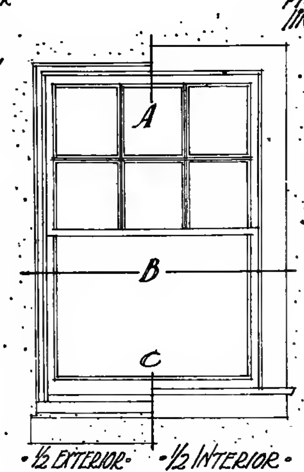


· SECTION C (SILL) ·

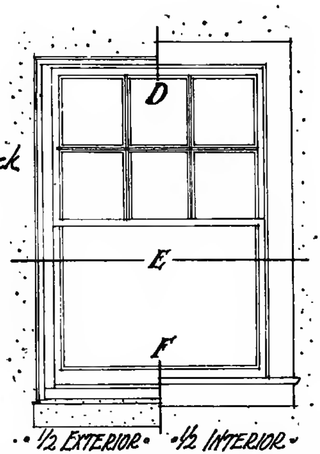


· SECTION AT FLOOR ·

· FOR DOUBLE WALLS ·

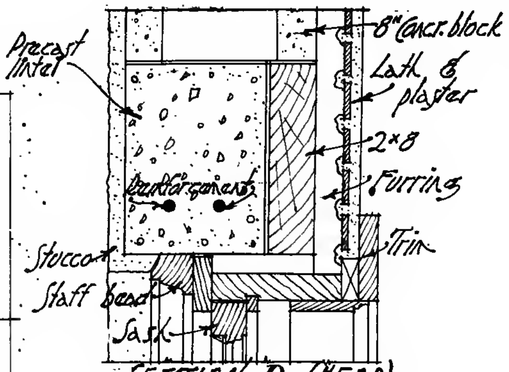


· ½ EXTERIOR · · ½ INTERIOR ·
FOR DOUBLE WALL

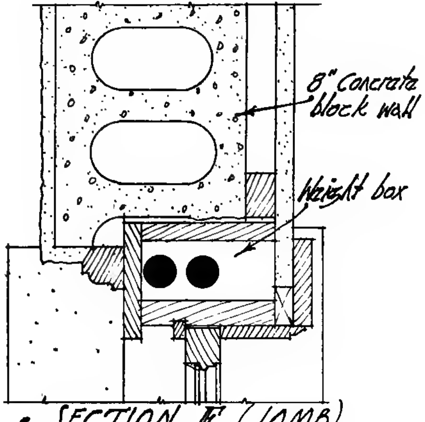


· ½ EXTERIOR · · ½ INTERIOR ·
· FOR HOLLOW-BLOCK WALL ·

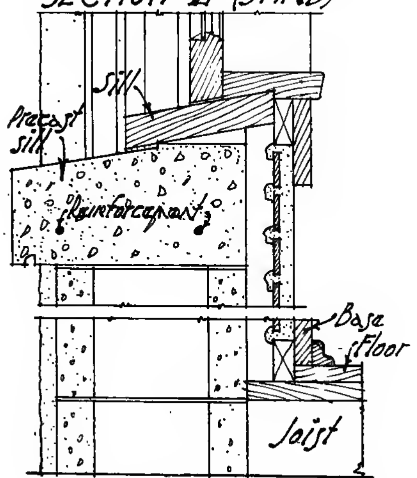
· ELEVATIONS ·



· SECTION D (HEAD) ·



· SECTION E (JAMB) ·

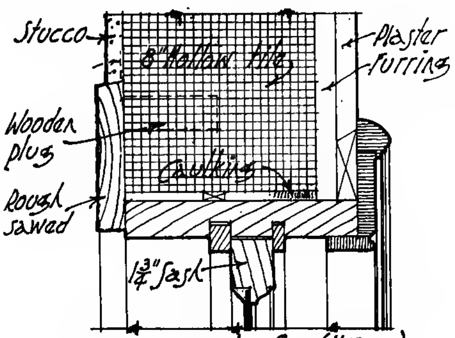


· SECT'N. F (SILL) ALSO SECTION AT FLOOR ·

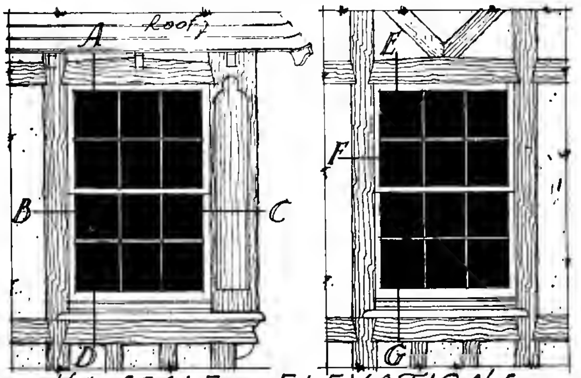
· FOR HOLLOW-BLOCK WALLS ·

DOUBLE-HUNG WINDOWS FOR CONCRETE WALLS ·

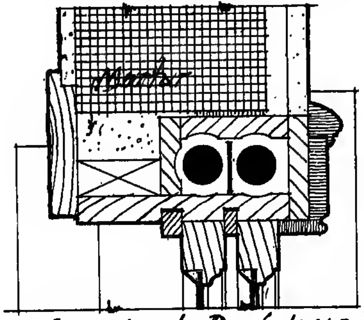
THE ELEVATIONS ARE ⅜-INCH SCALE · · THE SECTIONS ARE 1½-INCH SCALE ·



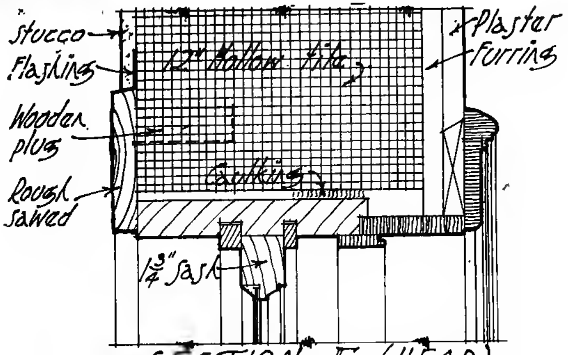
• SECTION A (HEAD) •



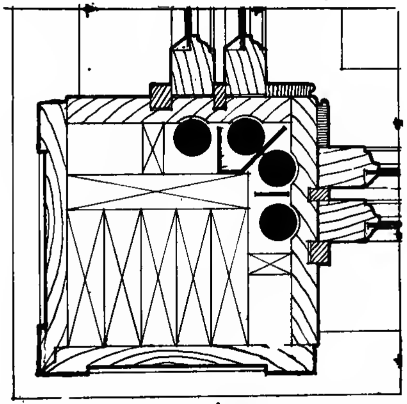
• ¼" SCALE ELEVATIONS •



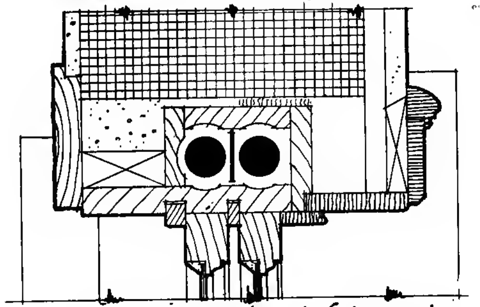
SECTION B (JAMB)



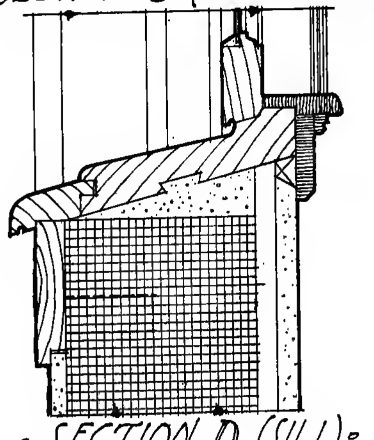
• SECTION E (HEAD) •



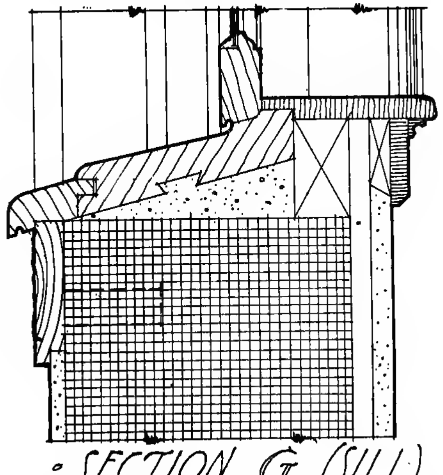
• SECTION C (CORNER MULLION) •



• SECTION F (JAMB) •



• SECTION D (SILL) •



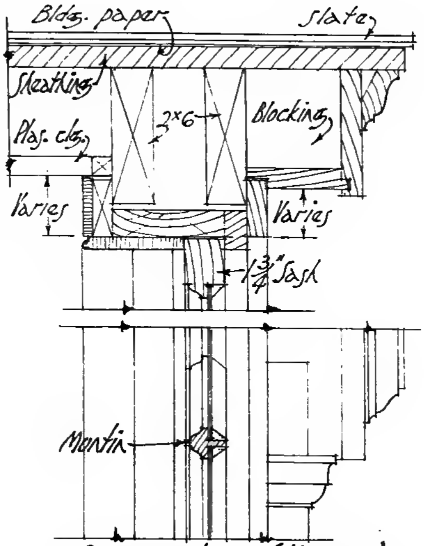
• SECTION G (SILL) •

• FOR 8" HOLLOW TILE WALLS •

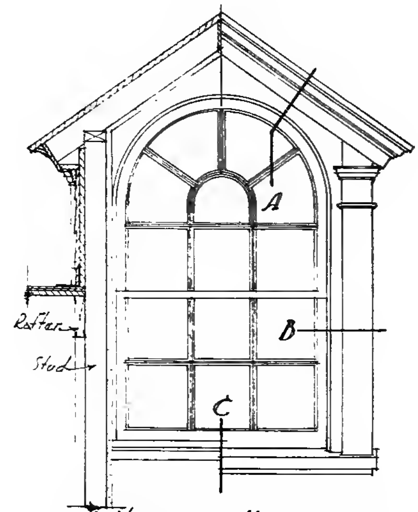
• FOR 12" HOLLOW TILE WALLS •

• DOUBLE HUNG WINDOWS FOR HALF-TIMBER WALLS •

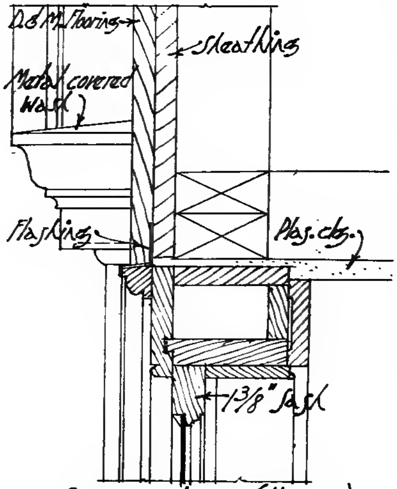
• 1½-INCH SCALE •



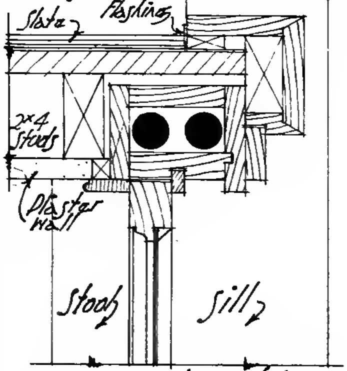
•SECTION A (HEAD)•
•ALSO A PART ELEV. & UPPER JAMB•



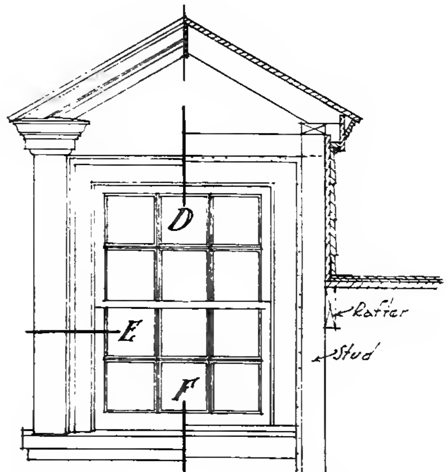
•½ INTERIOR• •½ EXTERIOR•
•TYPE 1•



•SECTION D (HEAD)•

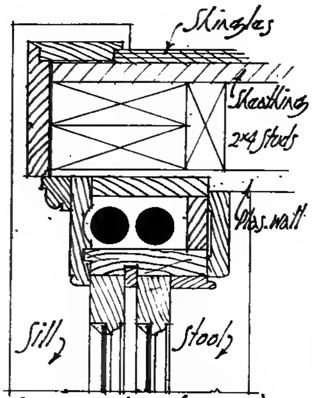


•SECTION B (JAMB)•

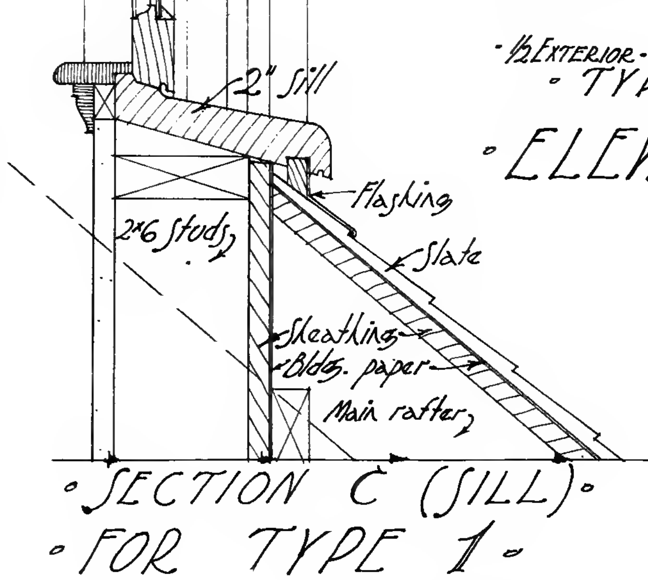


•½ EXTERIOR• •½ INTERIOR•
•TYPE 2•

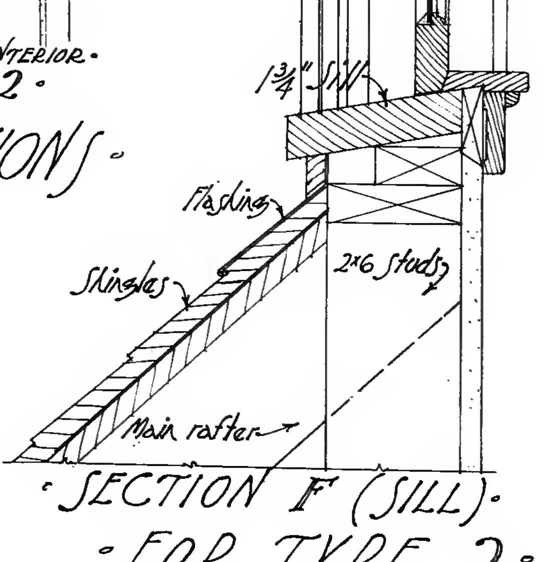
•ELEVATIONS•



•SECTION E (JAMB)•



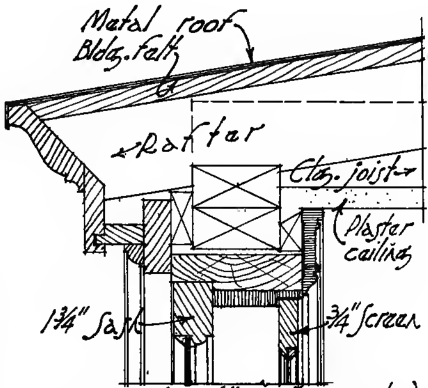
•SECTION C (SILL)•
•FOR TYPE 1•



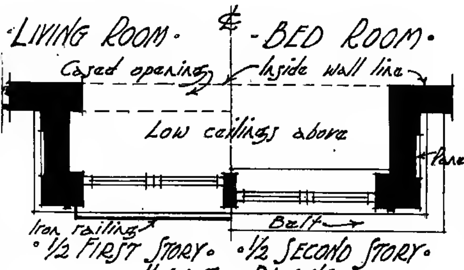
•SECTION F (SILL)•
•FOR TYPE 2•

•DORMER WINDOWS•

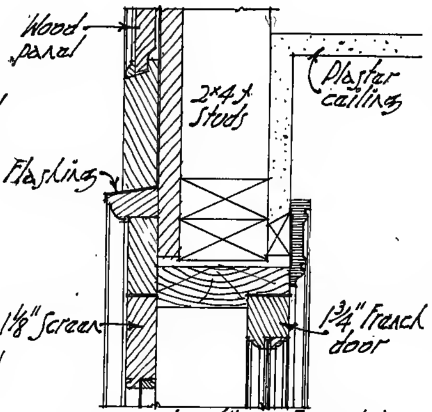
•THE ELEVATIONS ARE ⅜-INCH SCALE• •THE SECTIONS ARE 1½-INCH SCALE•



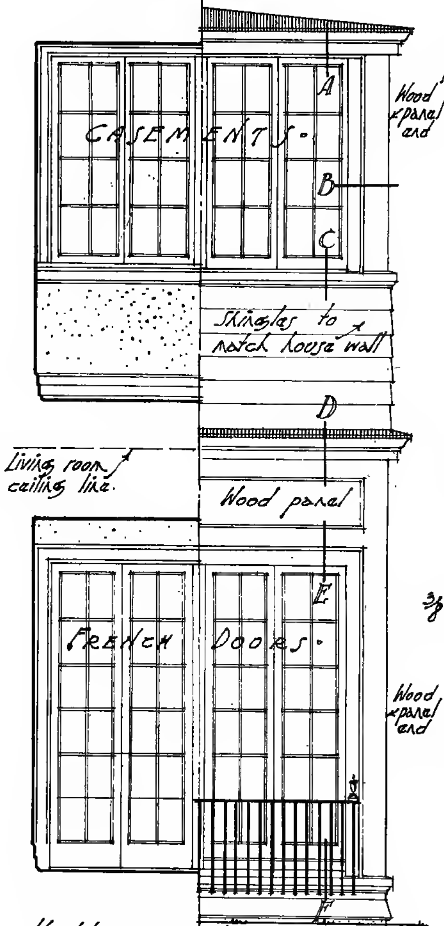
SECTION A (HEAD & CASEMENTS, CORNICE, ETC.)



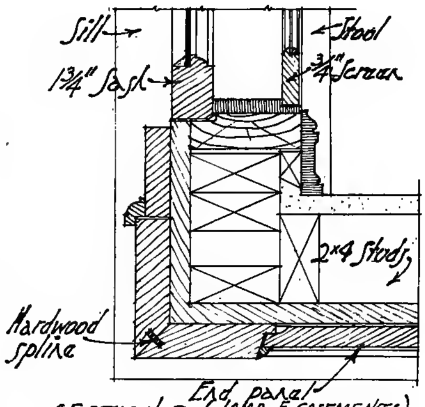
·HALF·PLANS·



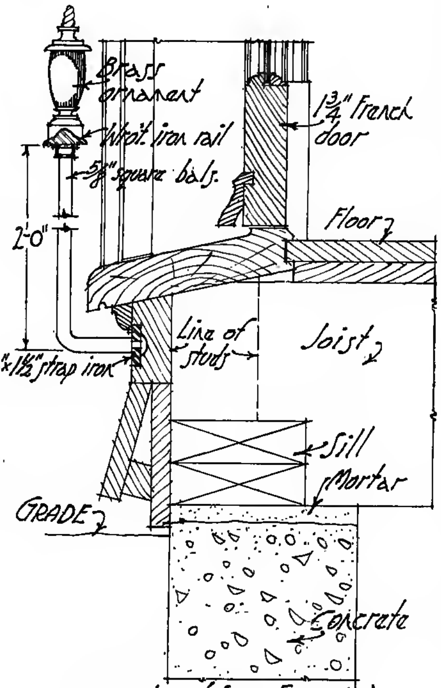
SECTION E (HEAD & FRENCH DOORS, ETC.)



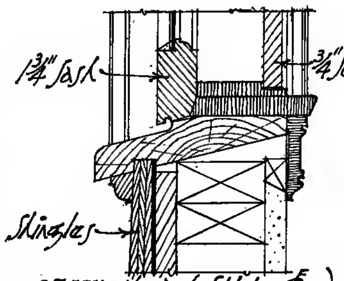
·ELEVATIONS·



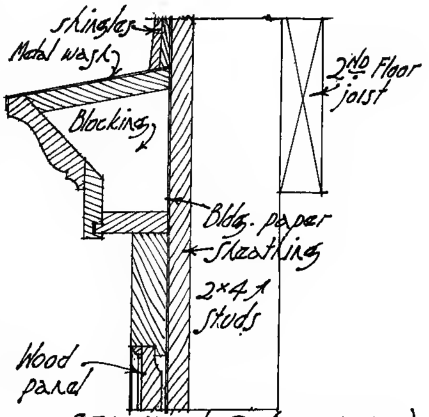
SECTION B (JAMB & CASEMENTS, CORNER, ETC.)



SECTION F (SILL & FRENCH DOORS, ETC.)



SECTION C (SILL & CASEMENTS)



SECTION D (BELT, ETC.)

-A TWO-STORY BAY WINDOW-

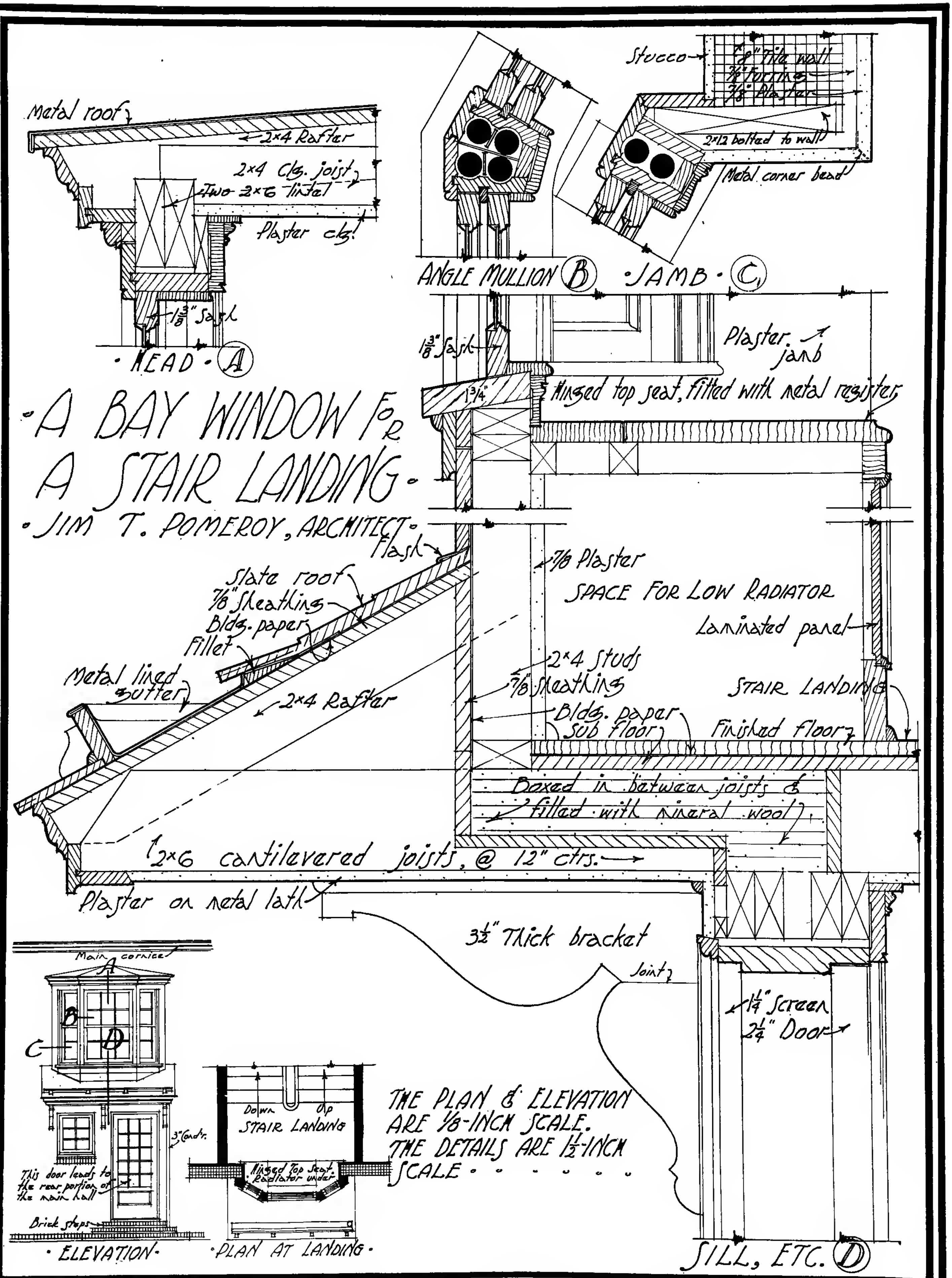
·FOR A DUTCH-COLONIAL HOUSE·

·CHARLES E. WHITE, JR., ARCHITECT·

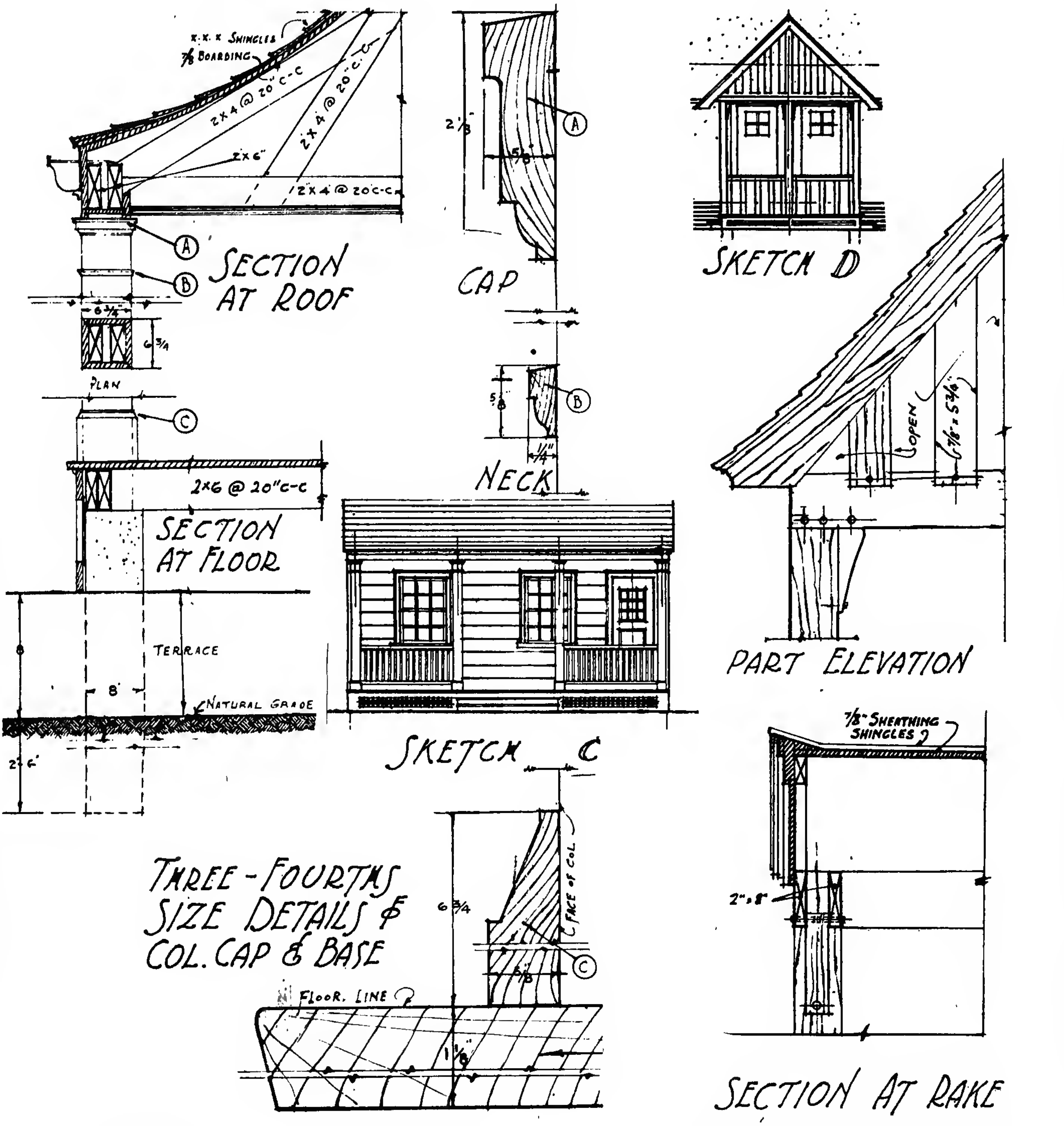
·THE PLAN & THE ELEVATION ARE ¼-INCH SCALE
THE SECTIONS ARE 1½-INCH SCALE·

A BAY WINDOW FOR A STAIR LANDING

JIM T. POMEROY, ARCHITECT



THE PLAN & ELEVATION ARE 1/8-INCH SCALE. THE DETAILS ARE 1 1/2-INCH SCALE . . . . . .



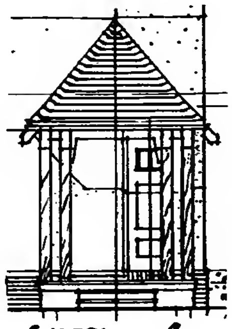
DETAILS - PORCH C

DETAILS - PORCH D

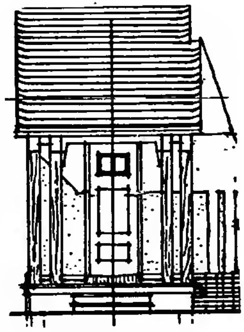
· P O R C H E S ·

· ONTARIO · HOUSING · COMMITTEE ·

0 1' 2' 3" DETAILS SCALES SKETCHES 0 5' 10' 15'



SKETCH A

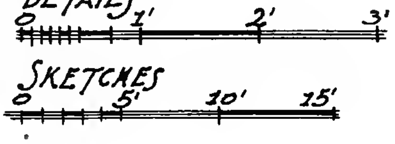


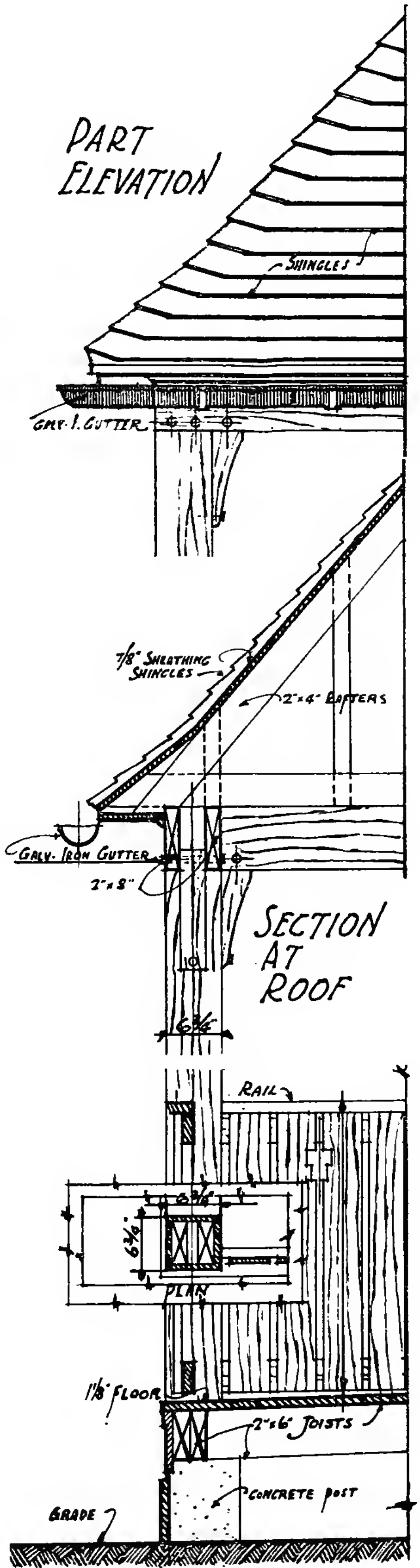
SKETCH B

◦PORCHES◦

ONTARIO HOUSING COMMITTEE

SCALES:



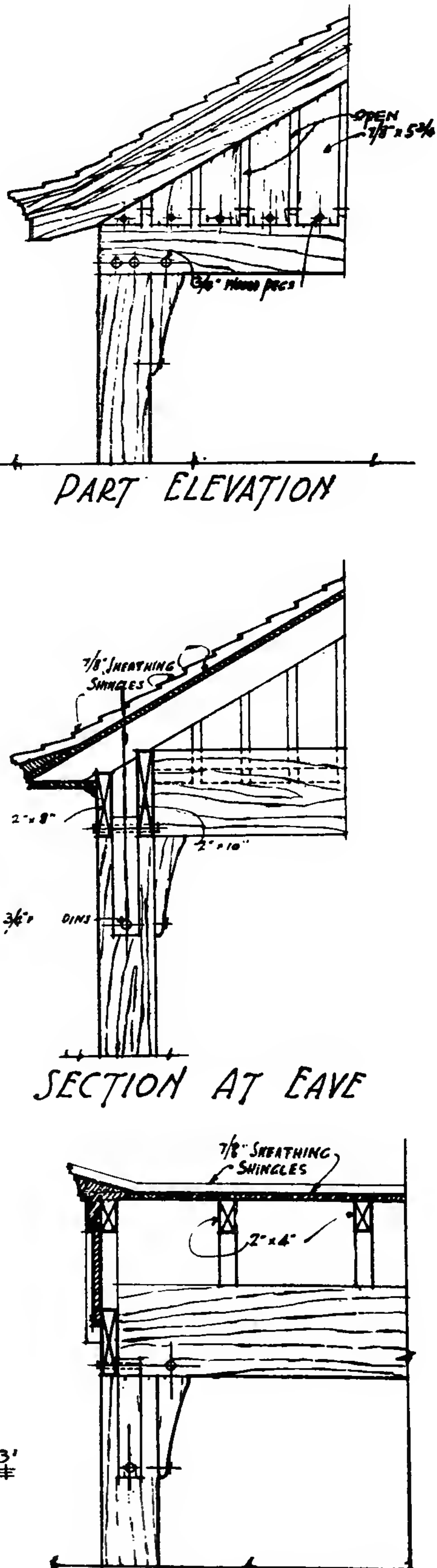


PART ELEVATION

SECTION AT ROOF

SECTION AT FLOOR

DETAILS - PORCH A

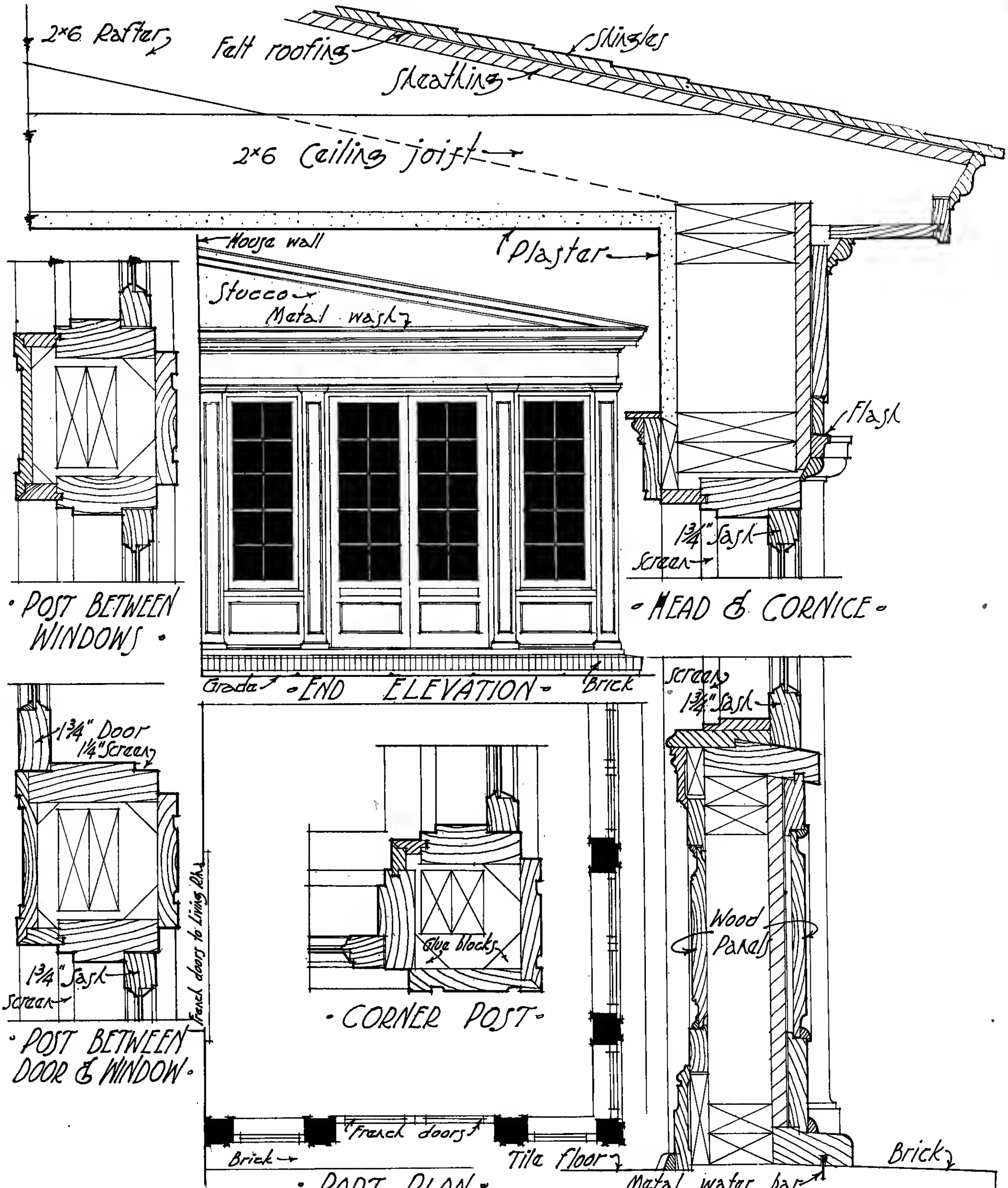


PART ELEVATION

SECTION AT EAVE

SECTION AT RAKE

DETAILS - PORCH B



· POST BETWEEN WINDOWS ·

· END ELEVATION ·

· HEAD & CORNICE ·

· POST BETWEEN DOOR & WINDOW ·

· CORNER POST ·

· PART PLAN ·

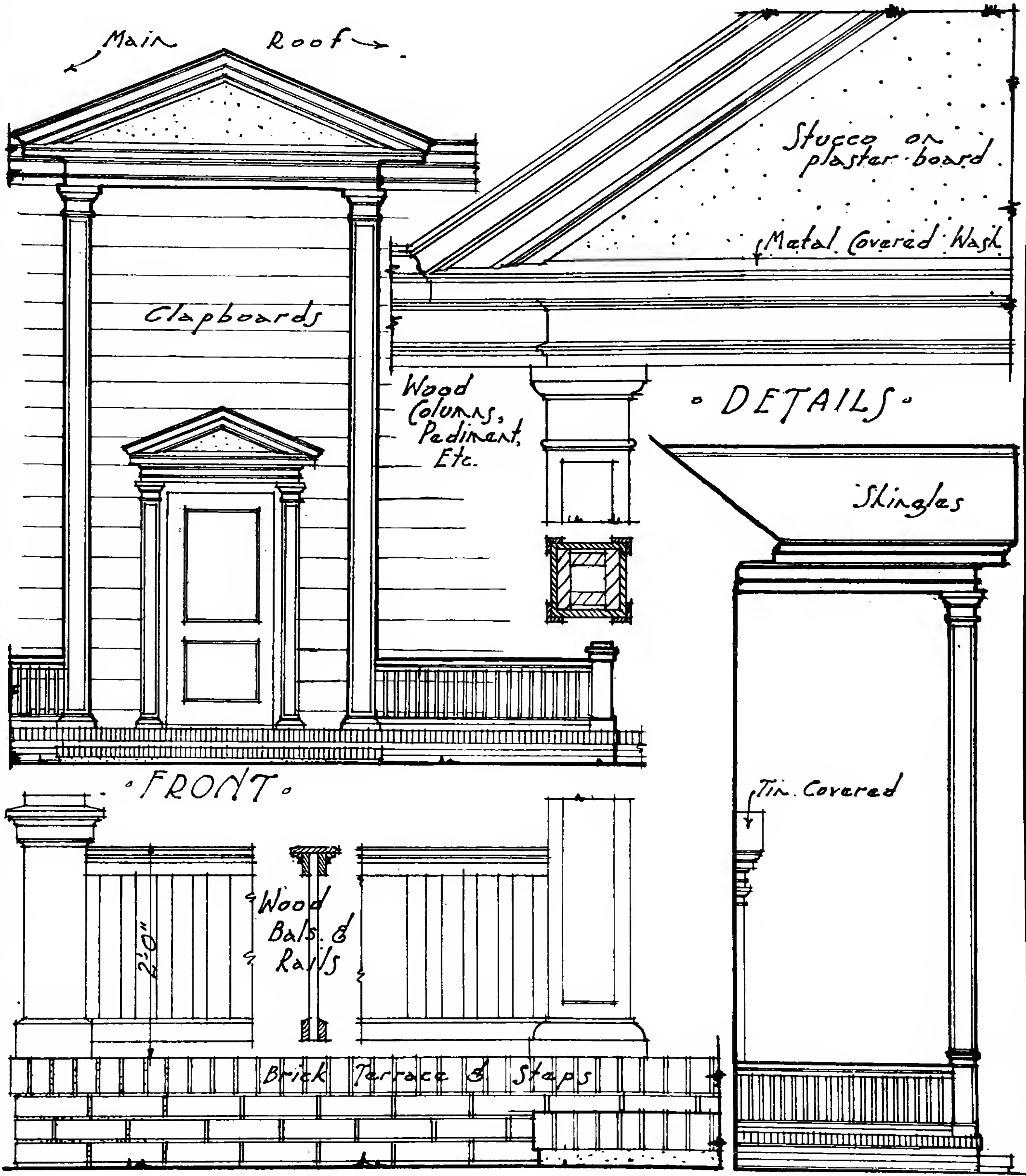
· SILL, ETC

· N.B. ALL WINDOWS ARE OUTSWINGING CASEMENTS ·

· THE PLAN & ELEVATIONS ARE ¼-INCH SCALE; THE DETAILS ARE 1½-INCH SCALE ·

· A LIVING PORCH ·

CHARLES E. WHITE, JR., ARCH'T.

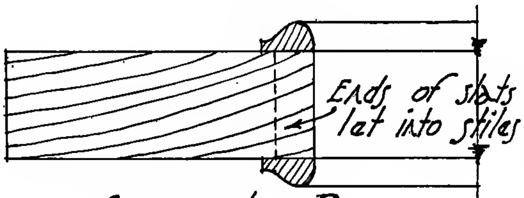


BUCKEYE BLDG. CO., ARCH'TS.

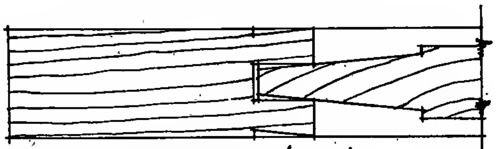
AN ENTRANCE PORCH

AT MANSFIELD OHIO

¼ Inch to 1 foot,-Elevations • SCALES • Details-¾ Inch to 1 foot



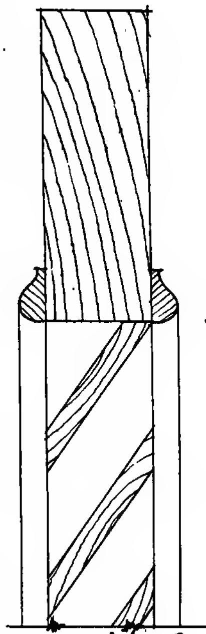
SECTION B



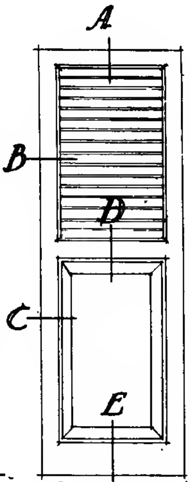
SECTION C

· COMBINATION BLIND-SHUTTER ·

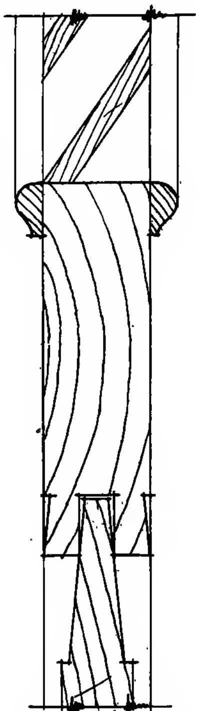
ALL SLATS STATIONARY



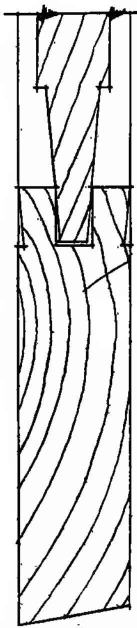
SECT'N. A ·



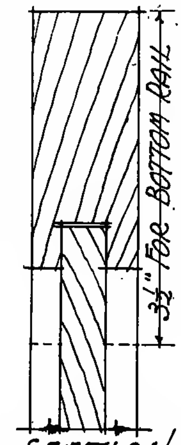
· ELEVATION ·



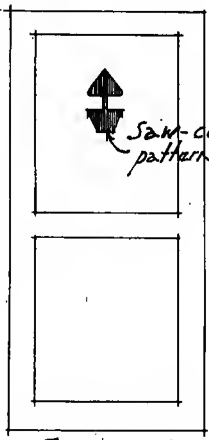
· SECT'N. D ·



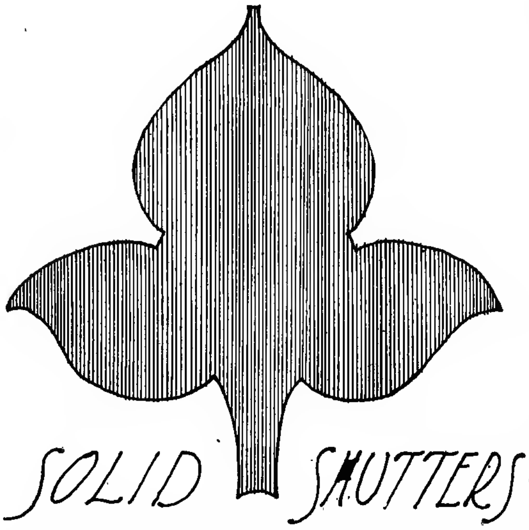
· SECT'N. E ·



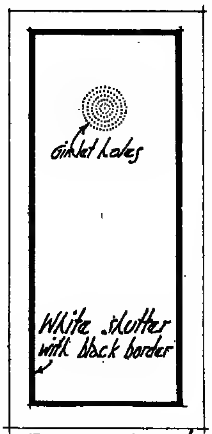
· SECTION ·



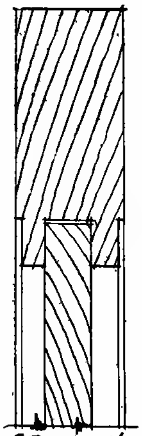
· ELEVATION ·



SOLID SHUTTERS

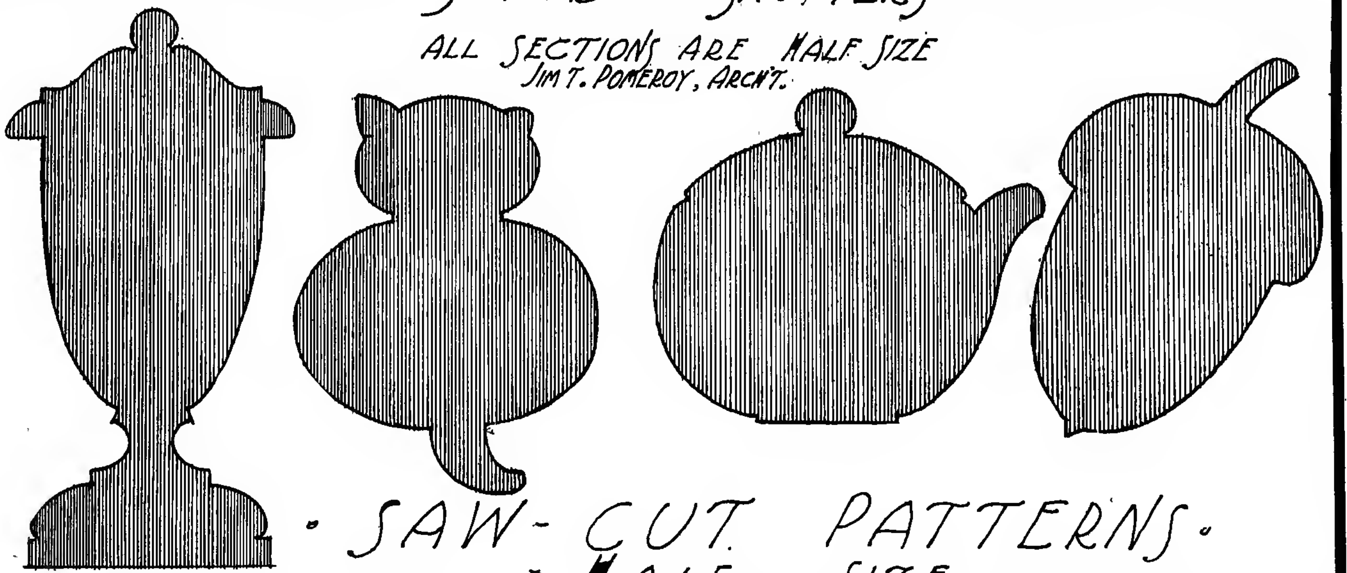


· ELEVATION ·



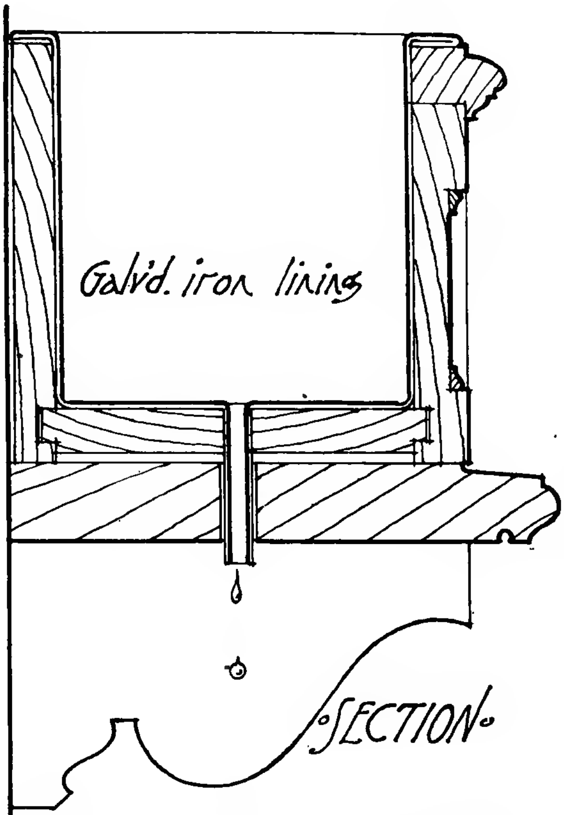
· SECTION ·

ALL SECTIONS ARE HALF SIZE
JIM T. POMEROY, ARCH'T.

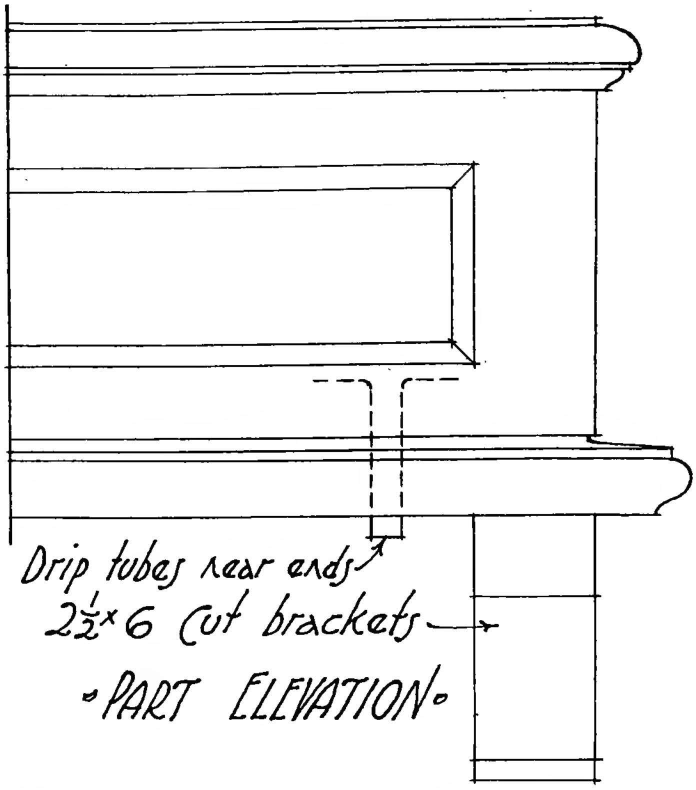


· SAW-CUT PATTERNS ·

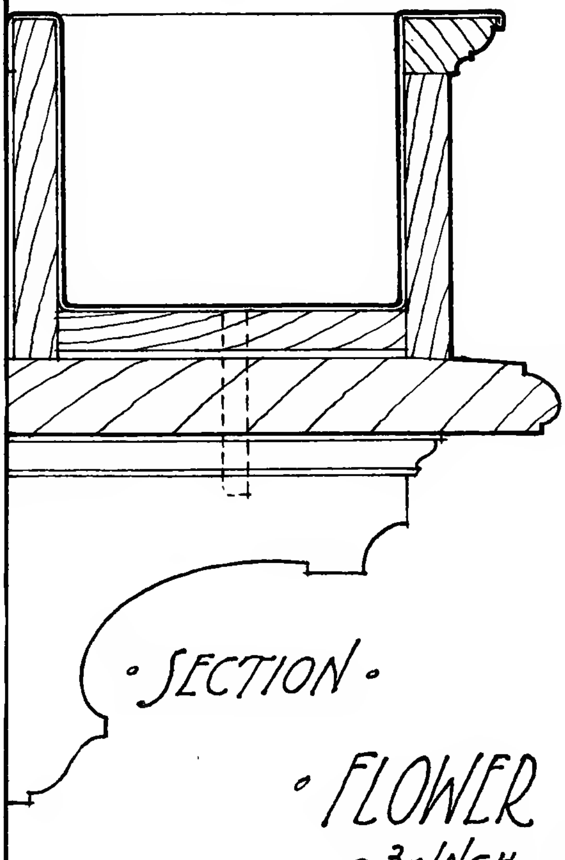
· HALF SIZE ·



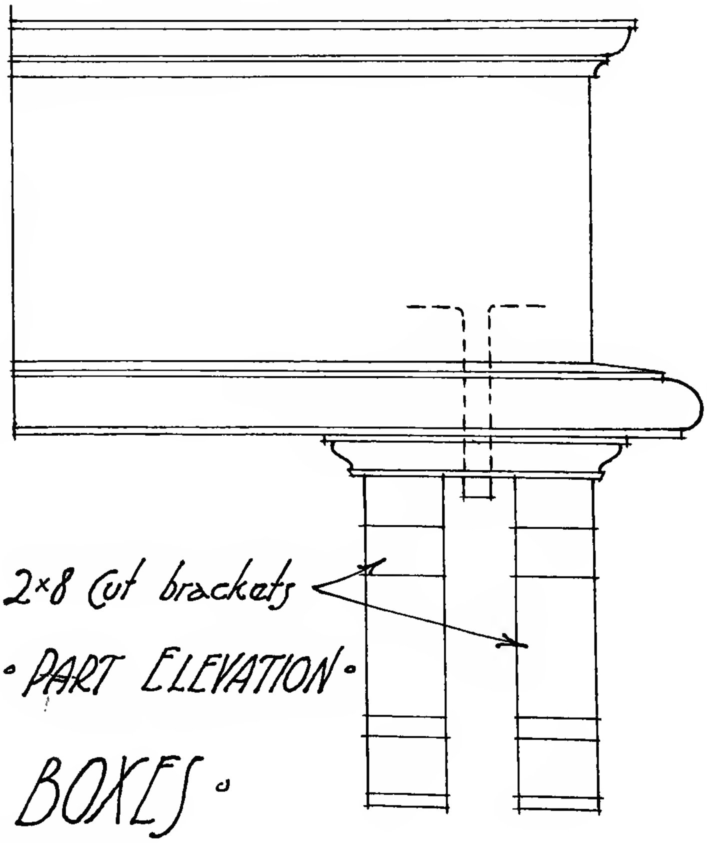
• SECTION •



• PART ELEVATION •



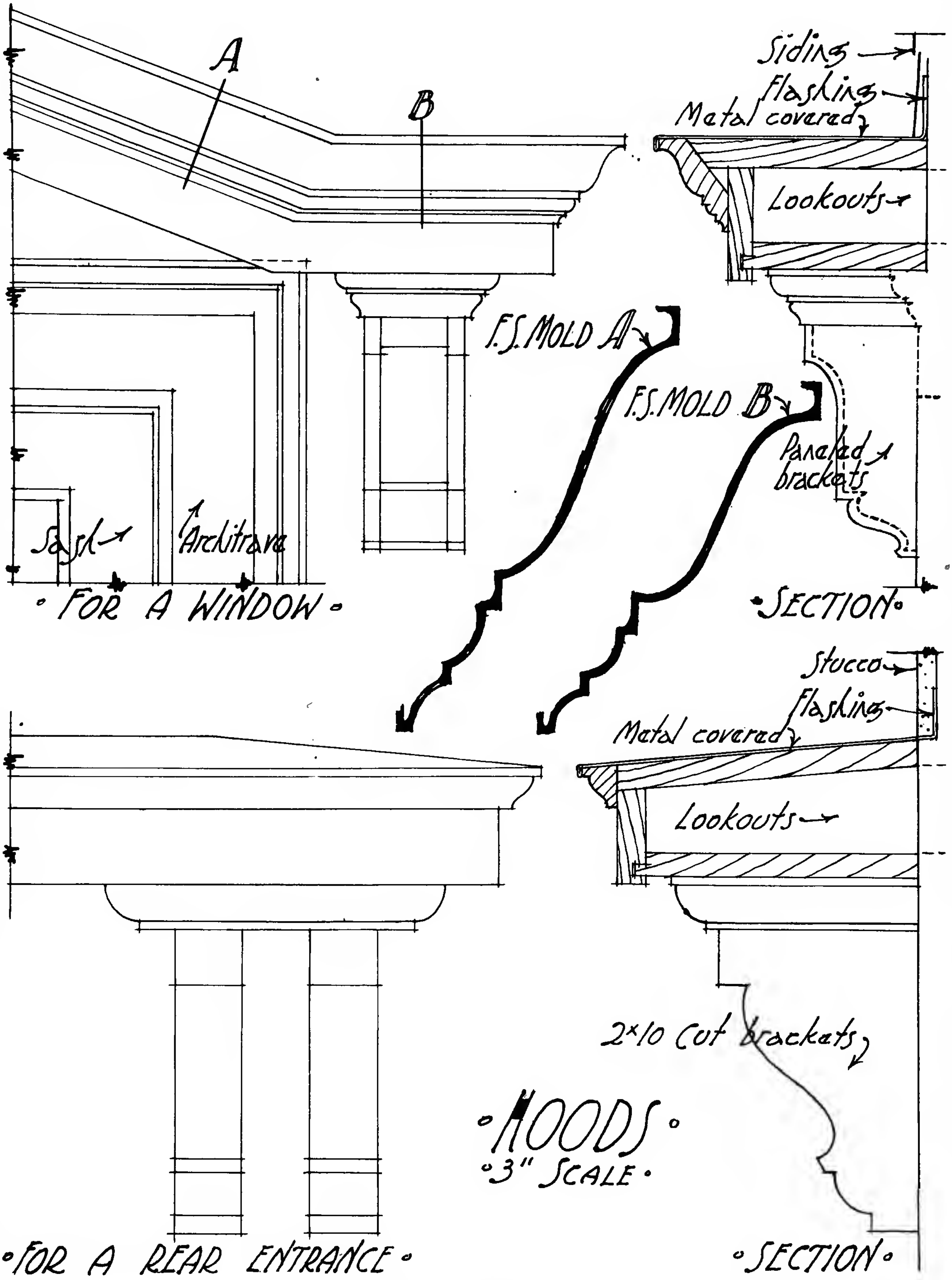
• SECTION •



• PART ELEVATION •

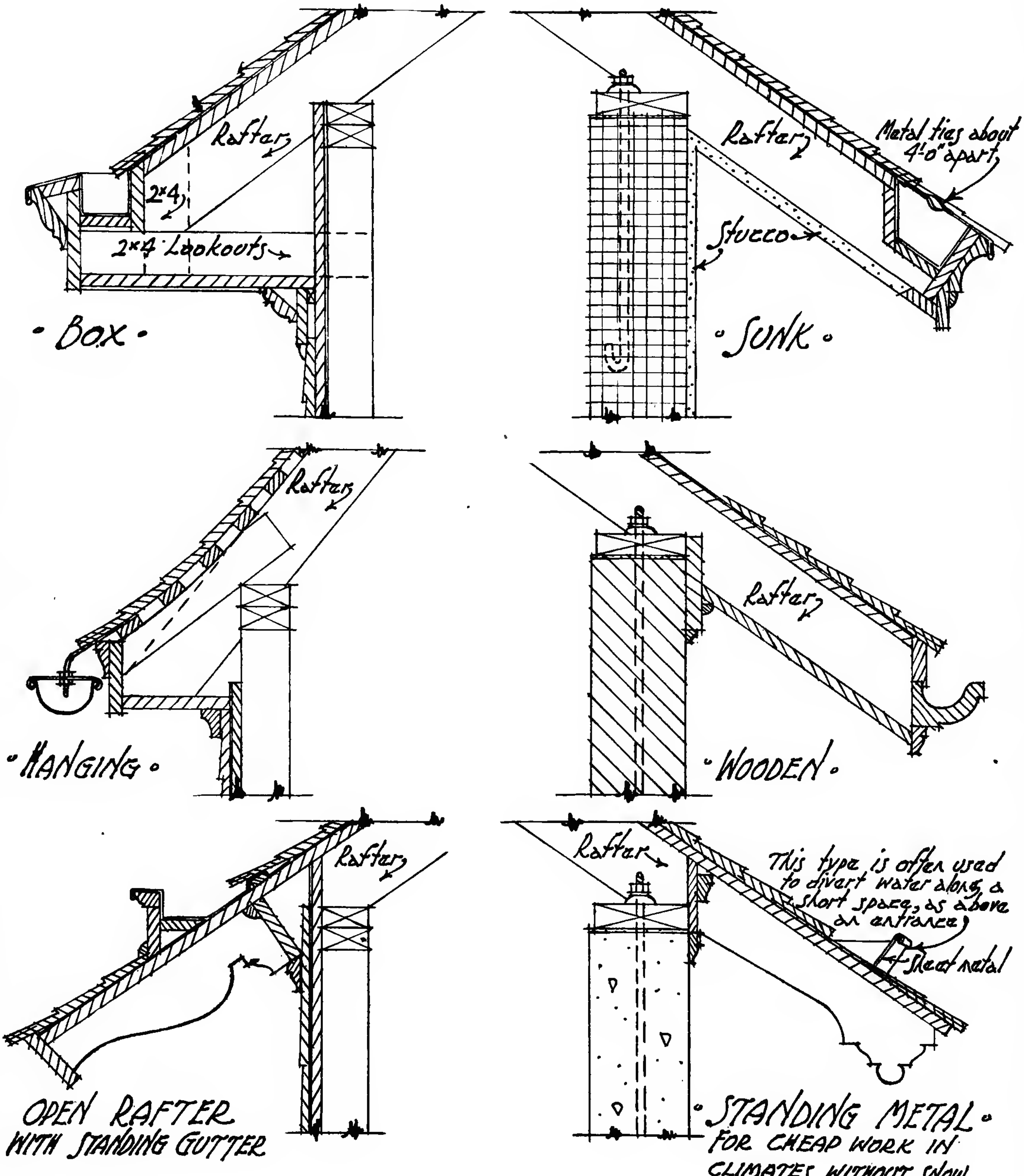
• FLOWER BOXES •

• 3-INCH SCALE •



HOODS

3" SCALE



Rafters
2×4
2×4 Lookouts
Rafters
Metal ties about 4'-0" apart
Stucco
Rafters
Rafters
Rafters
Rafter
This type is often used to divert water along a short space, as above an entrance
Sheet metal

• BOX •

• SUNK •

• HANGING •

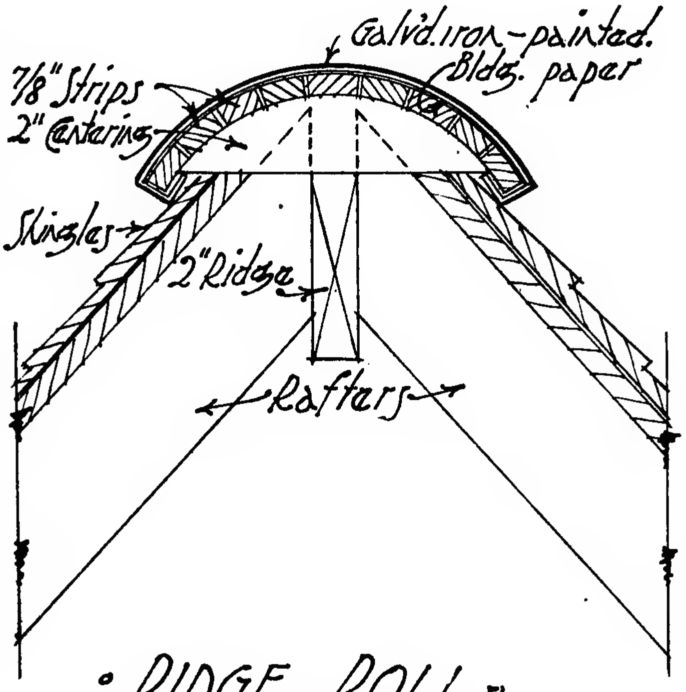
• WOODEN •

OPEN RAFTER
WITH STANDING GUTTER

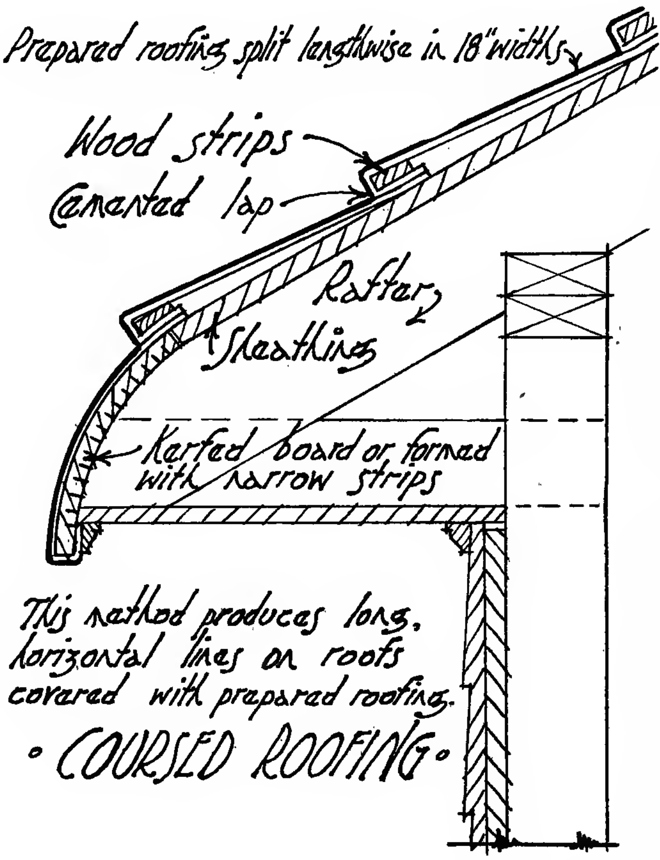
• STANDING METAL •
FOR CHEAP WORK IN
CLIMATES WITHOUT SNOW

• GUTTERS & CORNICES •

• ONE INCH SCALE •

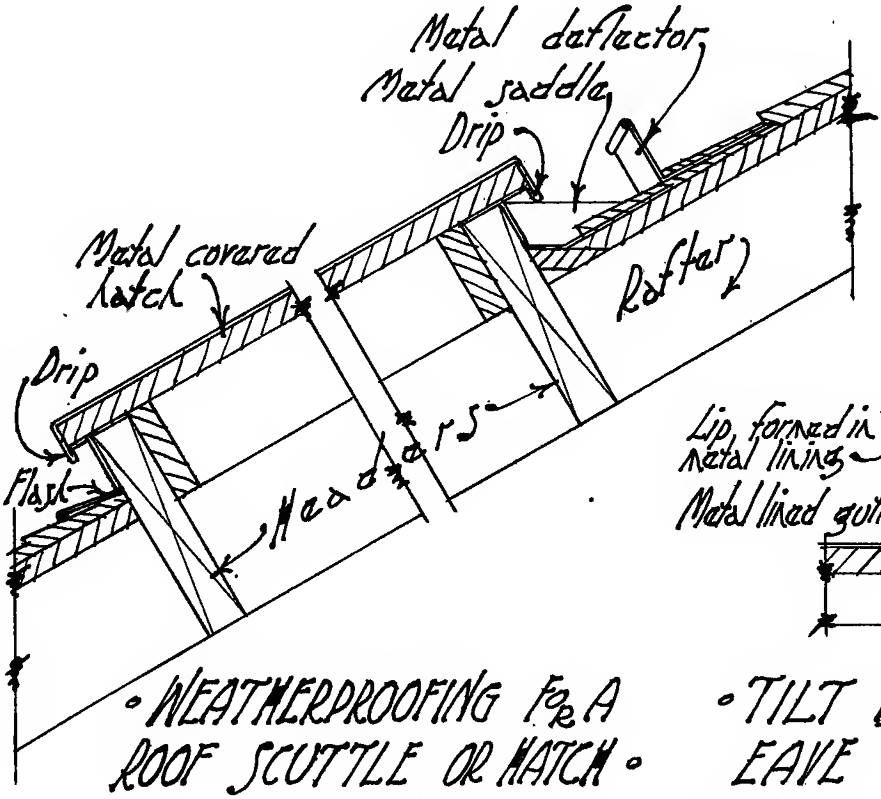


• RIDGE ROLL •
MURPHY & DANA, ARCH'TS.

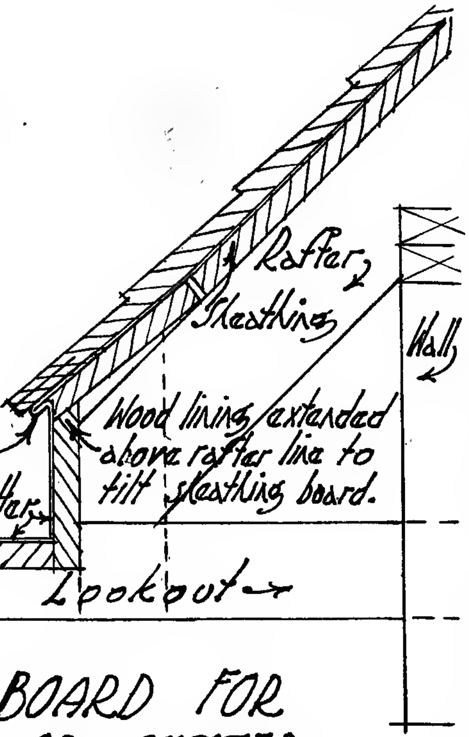

Prepared roofing split lengthwise in 18" widths
Wood strips
Cemented lap
Rafter
Sheathing
Kerfed board or formed with narrow strips

This method produces long, horizontal lines on roofs covered with prepared roofing.

• COURSED ROOFING •



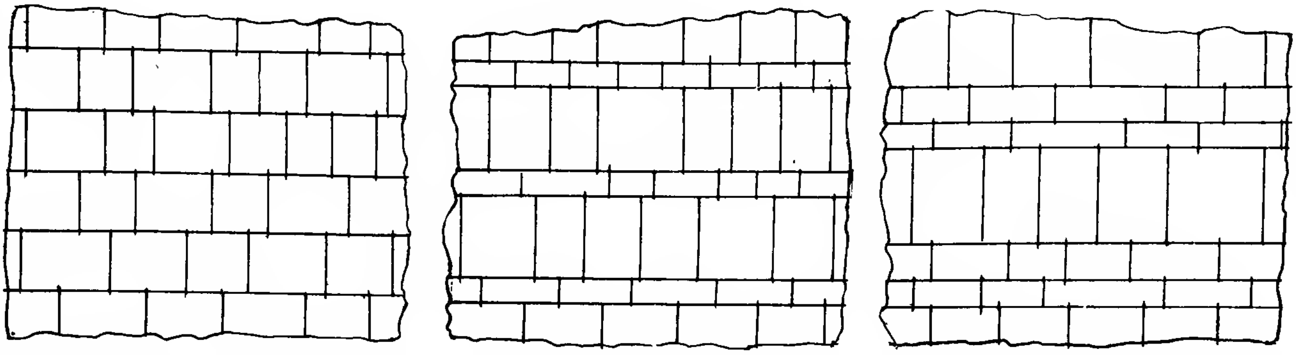
• WEATHERPROOFING FOR A ROOF SCUTTLE OR HATCH •


Rafter
Sheathing
Wall
Lip, formed in metal lining
Wood lining extended above rafter line to tilt sheathing board.
Metal lined gutter
Lookout

• TILT BOARD FOR EAVE OR GUTTER •

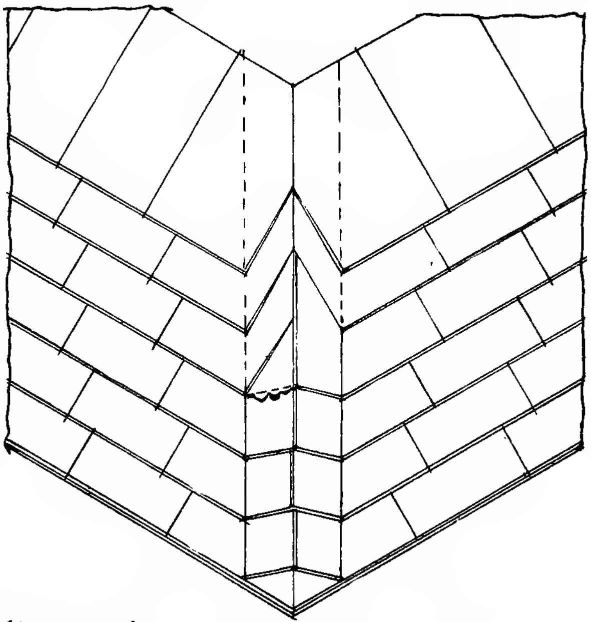
• ROOF DETAILS •

• 1½-INCH SCALE •

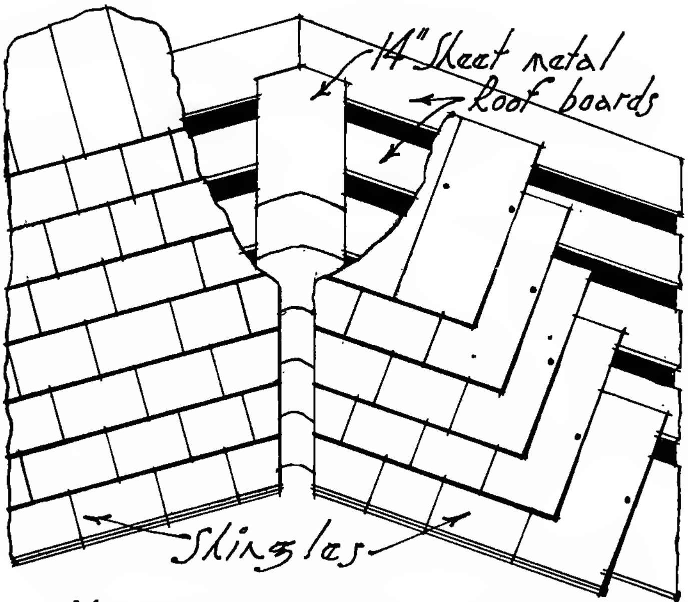


∘5 INCHES TO WEATHER∘ ∘2-7 INCHES TO WEATHER∘ ∘3-2-8 INCHES TO WEATHER∘

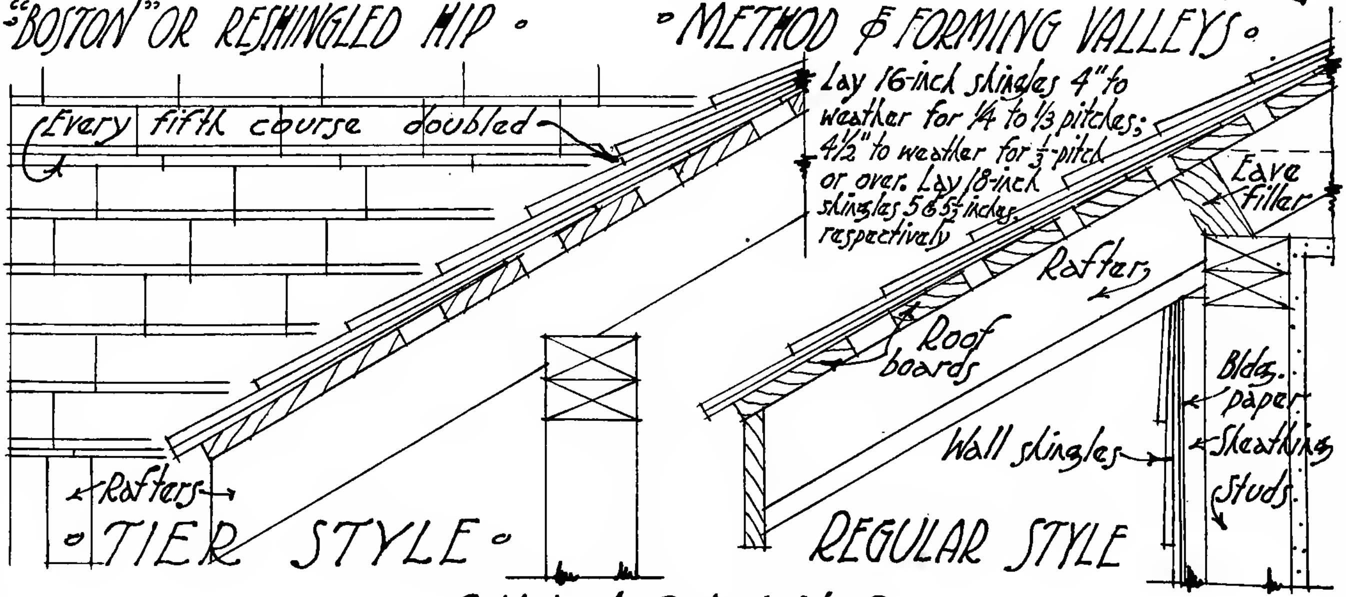
∘METHODS OF LAYING 16" SHINGLES ON WALLS∘



“BOSTON” OR RESHINGLED HIP∘

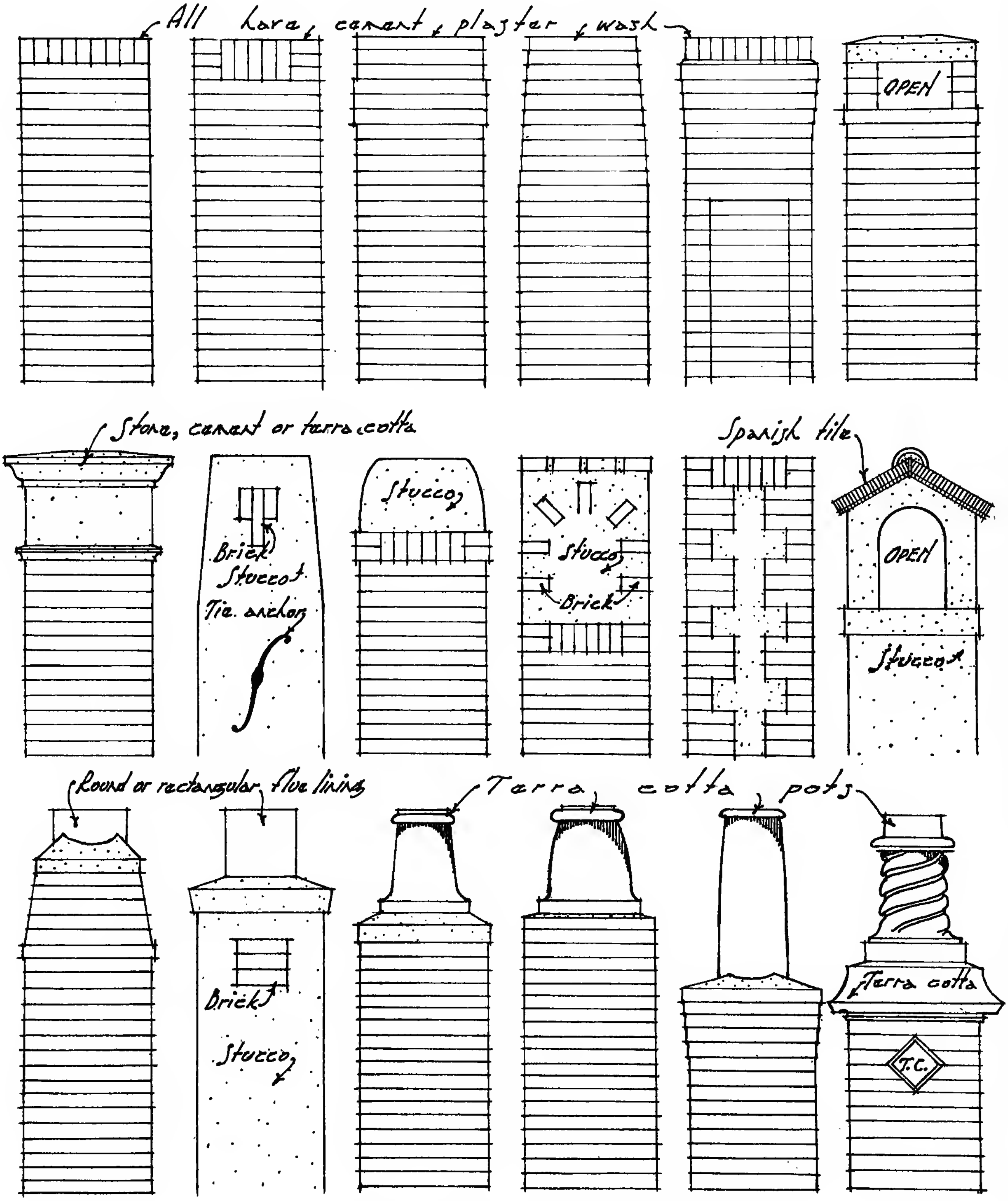


∘METHOD OF FORMING VALLEYS∘


Every fifth course doubled
Lay 16-inch shingles 4" to weather for 1/4 to 1/3 pitches; 4½" to weather for 1/3-pitch or over. Lay 18-inch shingles 5 & 5½ inches, respectively
Rafters
Eave filler
Rafters
Roof boards
Bldg. paper
Sheathing
Wall shingles
Studs

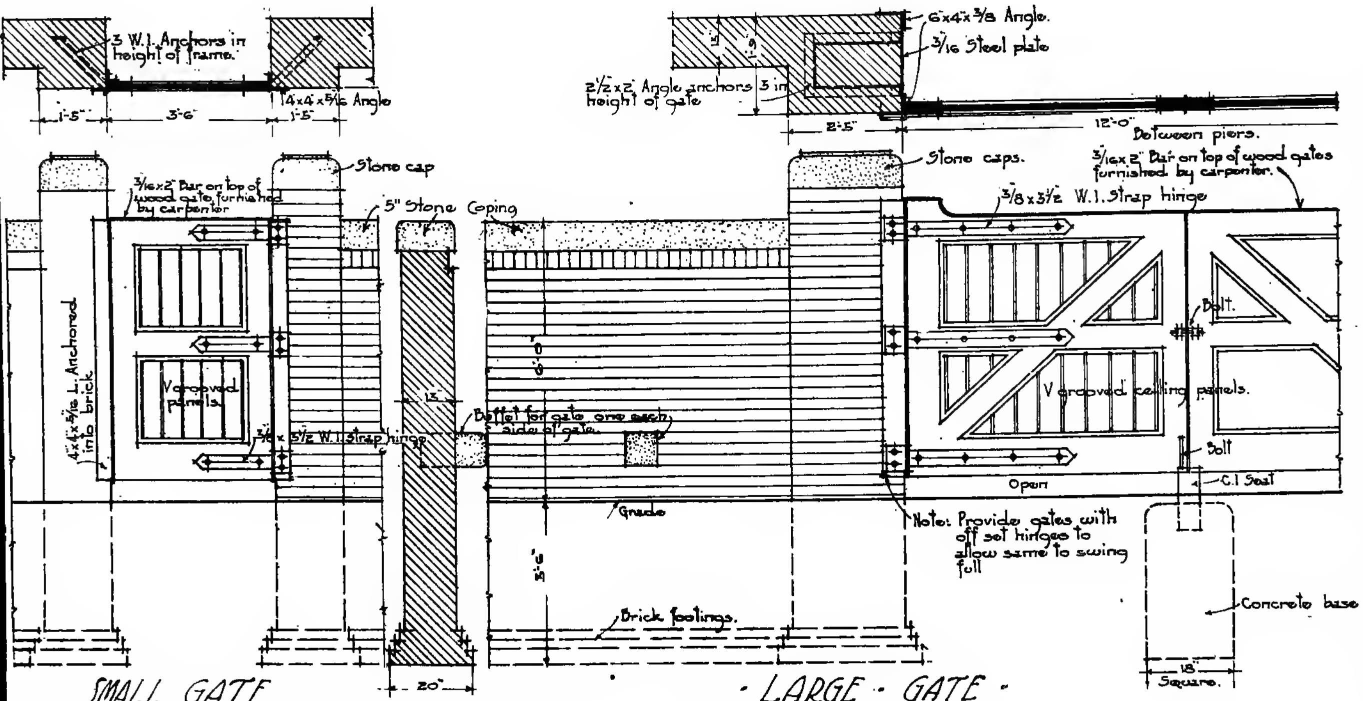
∘TIER STYLE∘ REGULAR STYLE

∘SHINGLING∘

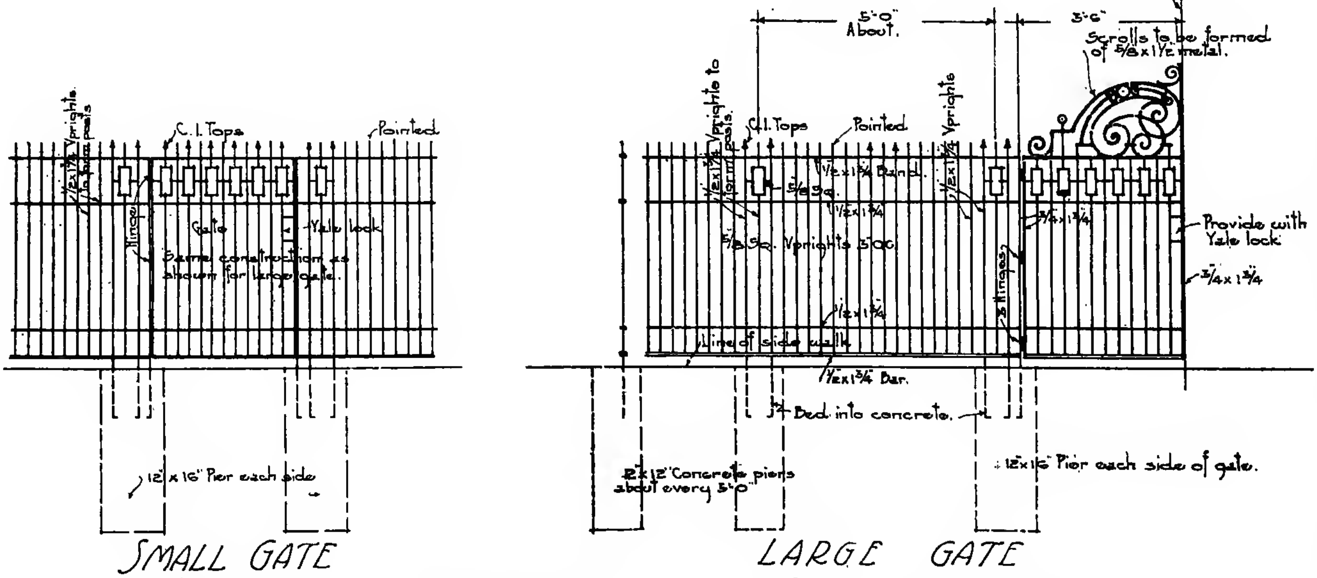


CHIMNEY TOPS

½-INCH SCALE


3 W.I. Anchors in height of frame.
4x4x5/16 Angle
1'-5"
3'-6"
1'-5"
Stone cap
3/16x2" Bar on top of wood gate furnished by carpenter
5" Stone Coping
4x4x5/16 L Anchored into brick
V grooved panels.
3/8x3 1/2 W.I. Strap hinge
13"
Buffet for gate one each side of gate.
Grade
Brick footings.
20"
6x4x3/8 Angle.
3/16 Steel plate
2 1/2x2 Angle anchors 3 in height of gate
2'-5"
12'-0" Between piers.
Stone caps.
3/16x2" Bar on top of wood gates furnished by carpenter.
3/8x3 1/2 W.I. Strap hinge
Bolt.
V grooved ceiling panels.
Bolt
Open
C.I. Seat
Note: Provide gates with off set hinges to allow same to swing full
Concrete base
18" Square.
SMALL GATE
LARGE GATE

BRICK WALL & GATES



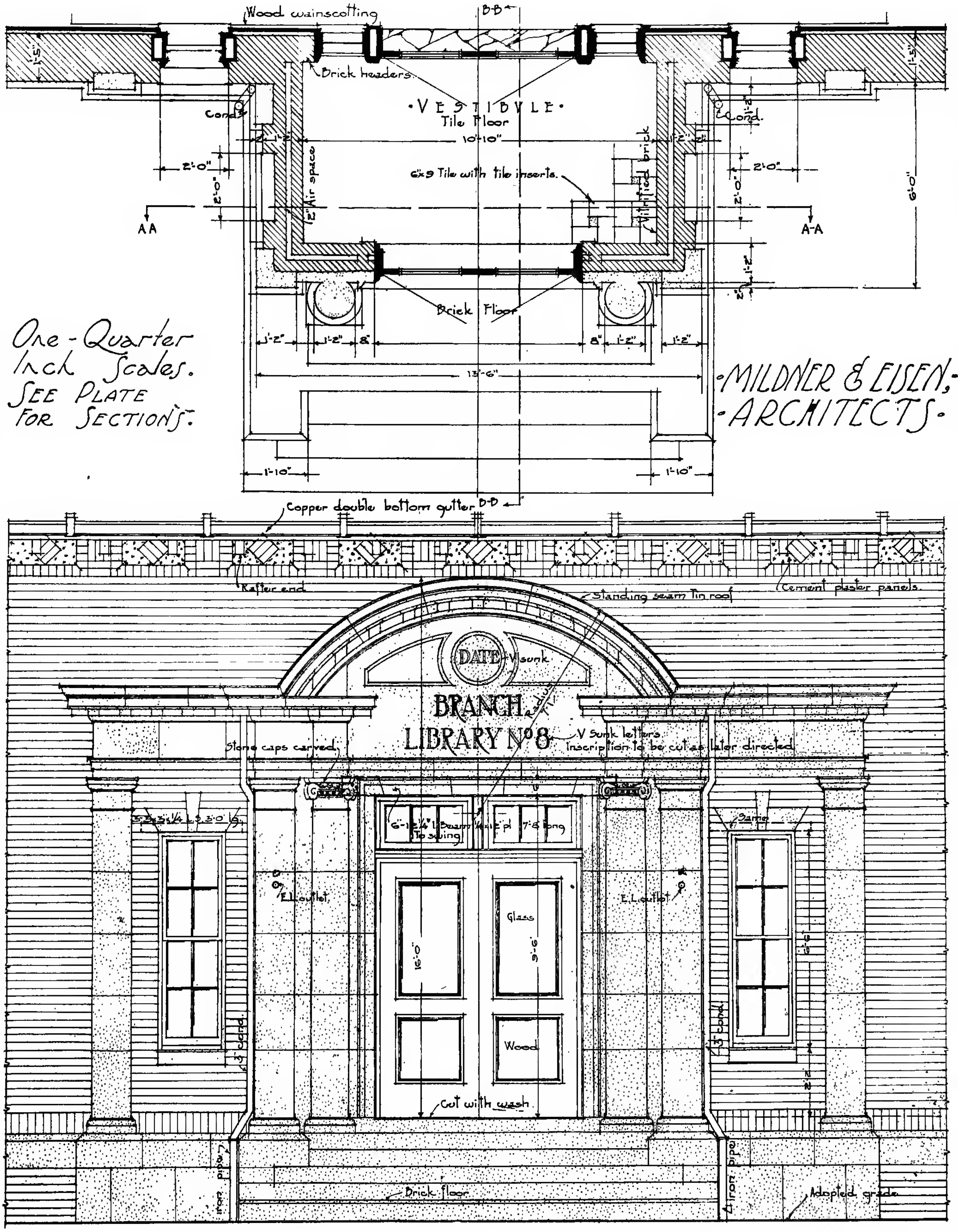
IRON FENCE & GATES

A BRICK WALL, IRON FENCE & GATES

AT DETROIT, MICHIGAN

One Quarter Inch Scale

MILDNER & EISEN, ARCHITECTS



One-Quarter Inch Scales.
See Plate for Sections.

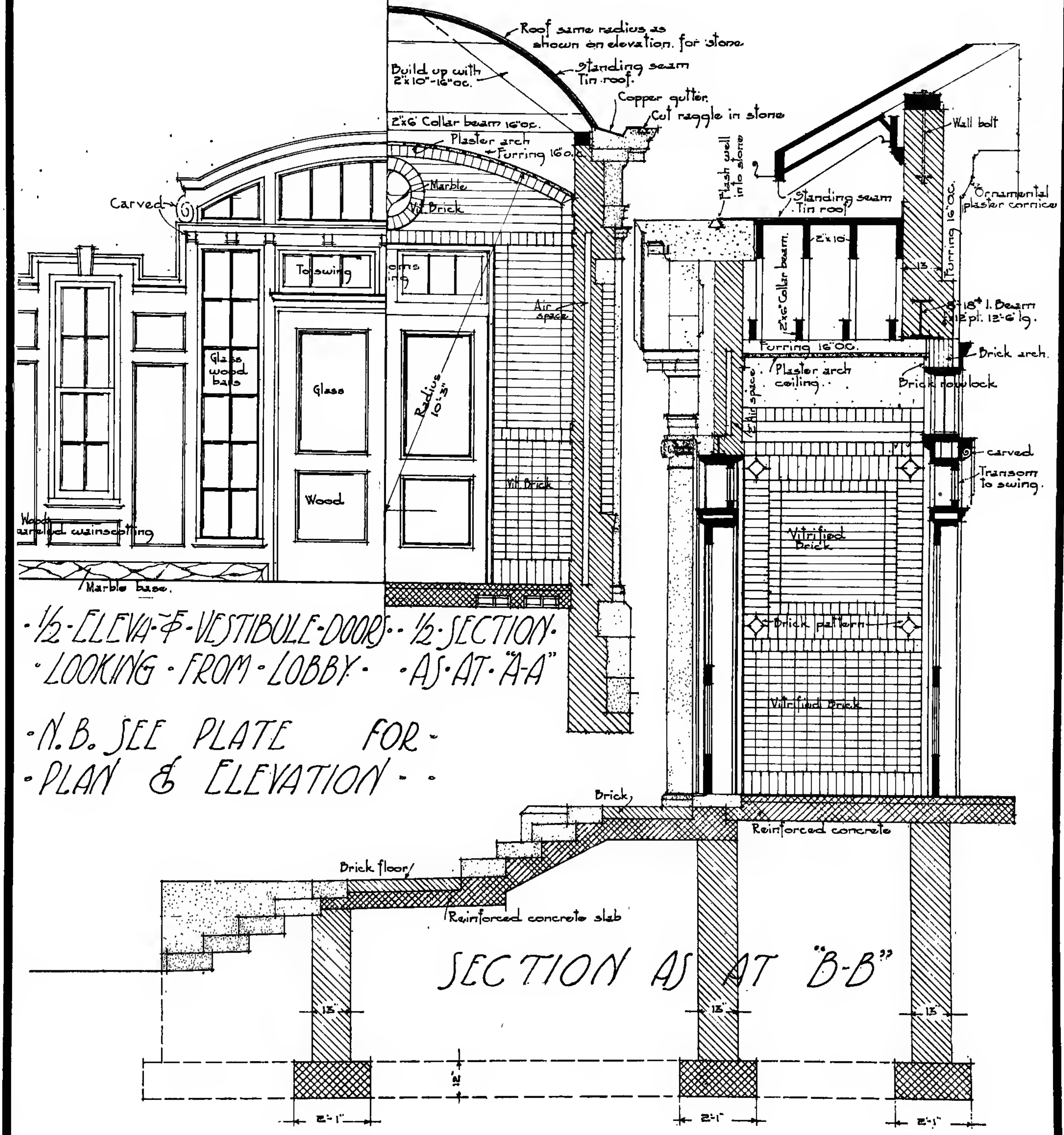
· MILDNER & EISEN, ·
· ARCHITECTS ·

PLAN & ELEVATION · A · LIBRARY · ENTRANCE · AT DETROIT, MICHIGAN

PLATE

NATIONAL ▲ BUILDER
CONSTRUCTION ▲ DETAILS

27



·½·ELEVA·OF·VESTIBULE·DOORS· ·LOOKING·FROM·LOBBY·

·½·SECTION· ·AS·AT·"A-A"

·N.B. SEE PLATE FOR· ·PLAN & ELEVATION··

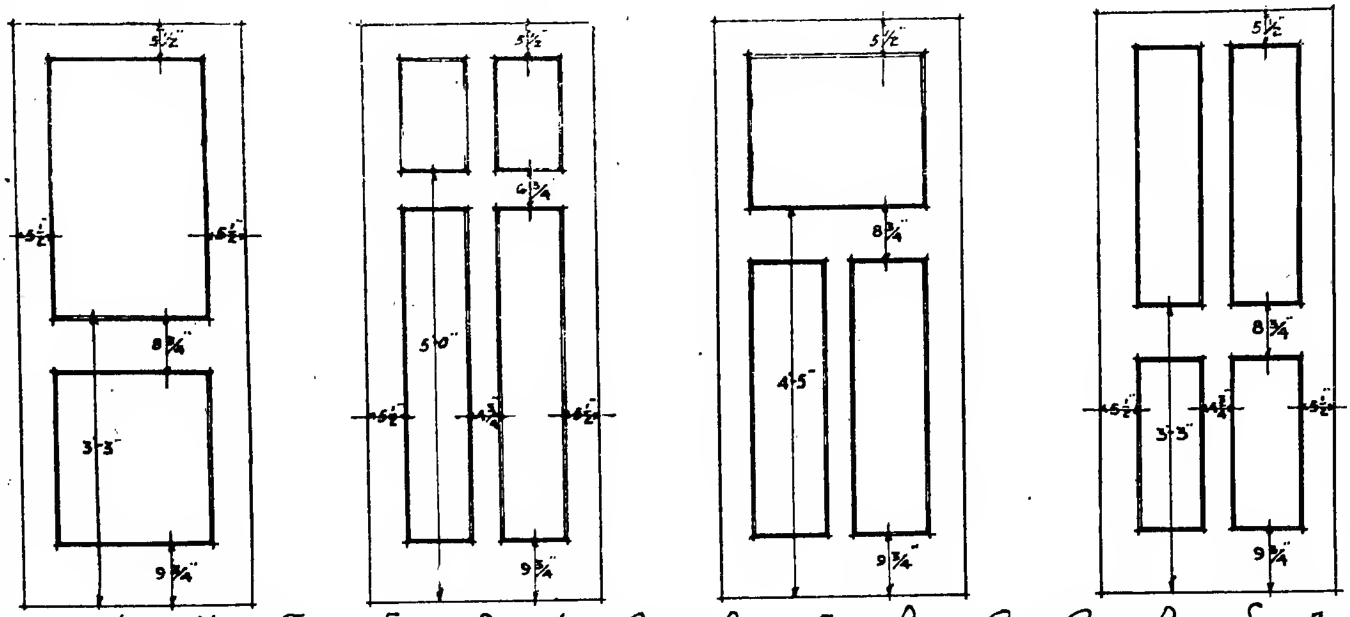
SECTION AS AT "B-B"

·DETAILS·OF·A·LIBRARY·ENTRANCE·

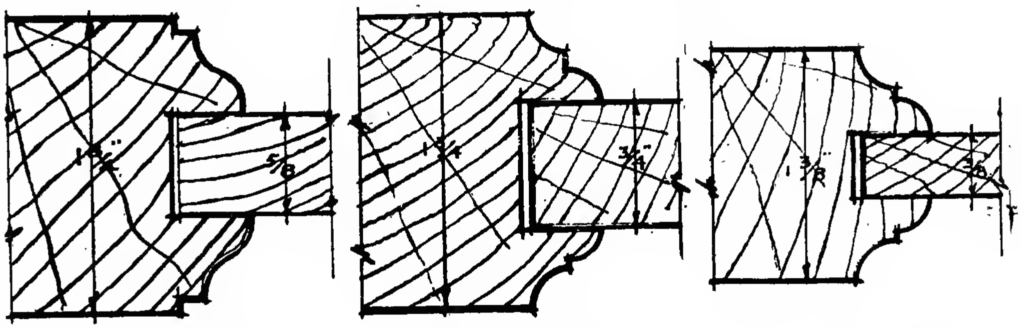
·AT DETROIT, MICHIGAN.

·One-Quarter Inch Scale·

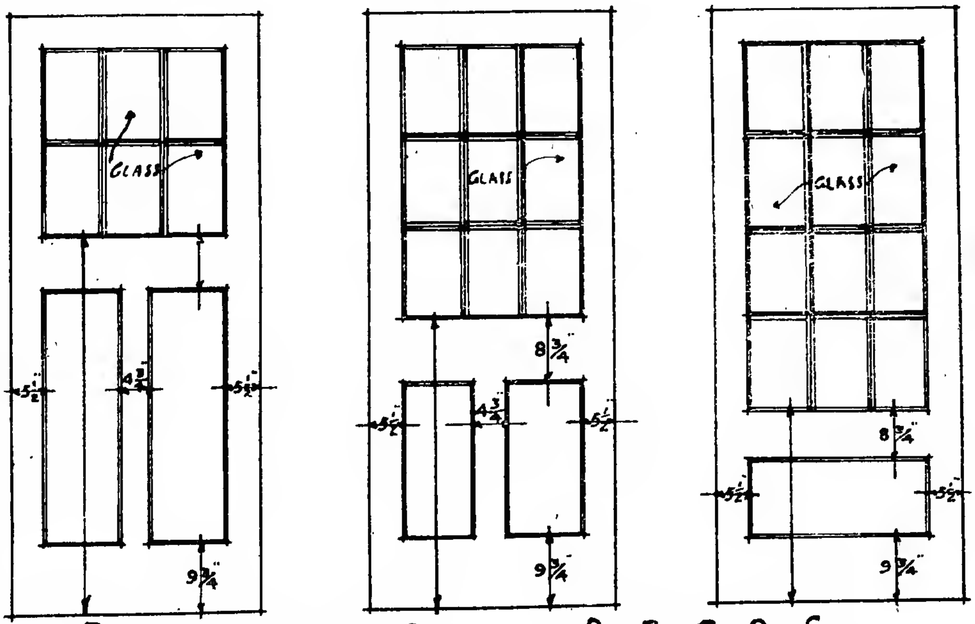
·MILDNER·&·EISEN, ARCHITECTS·

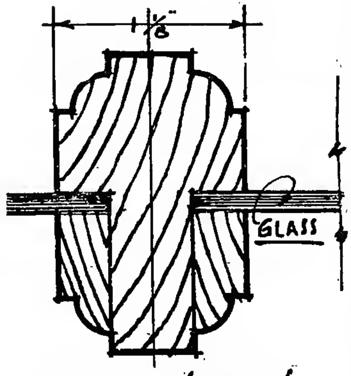


· INTERIOR · DOORS ·



PANEL MOULD'S.



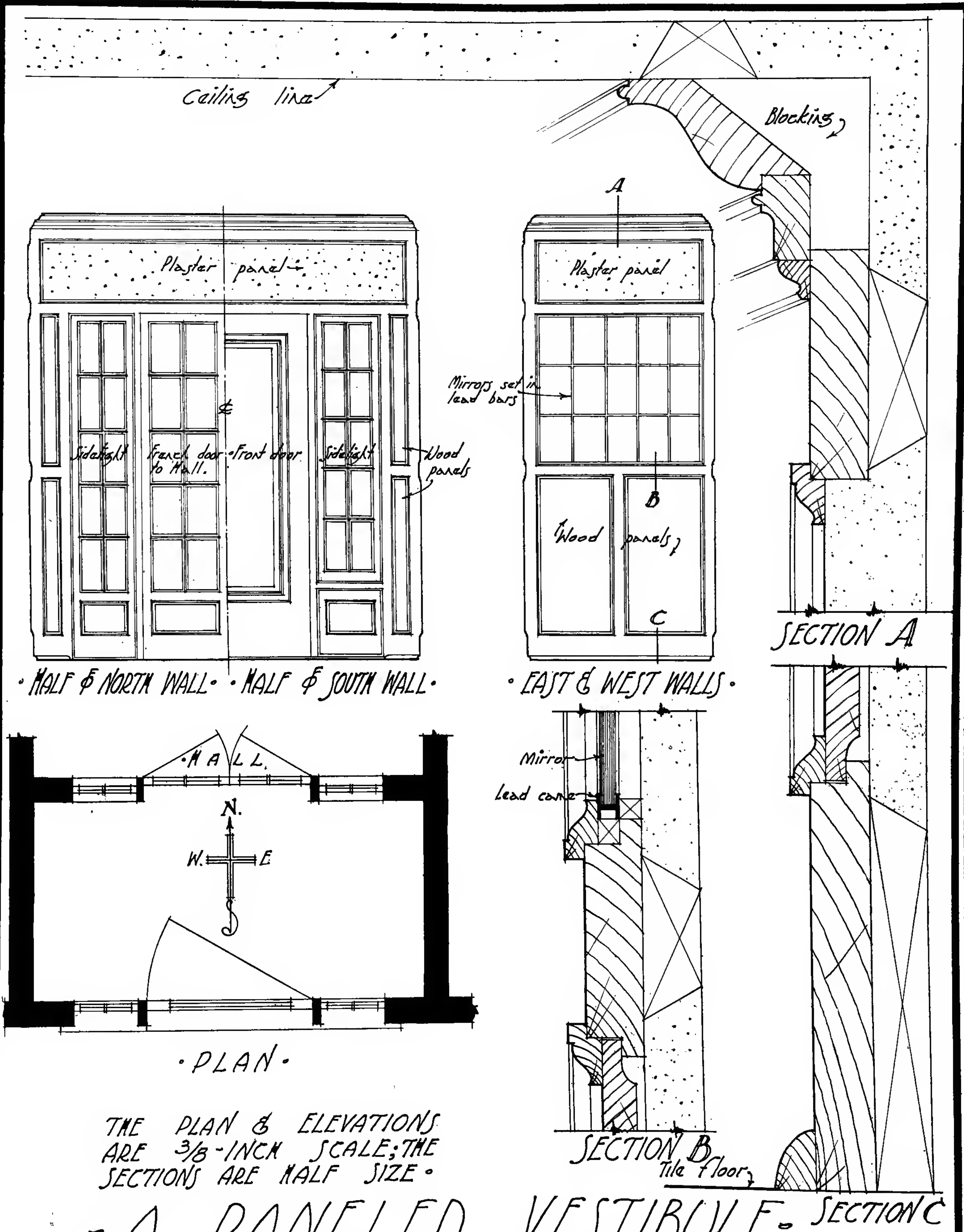


· MUNTIN ·

· EXTERIOR · DOORS ·

· DOOR · DETAILS ·

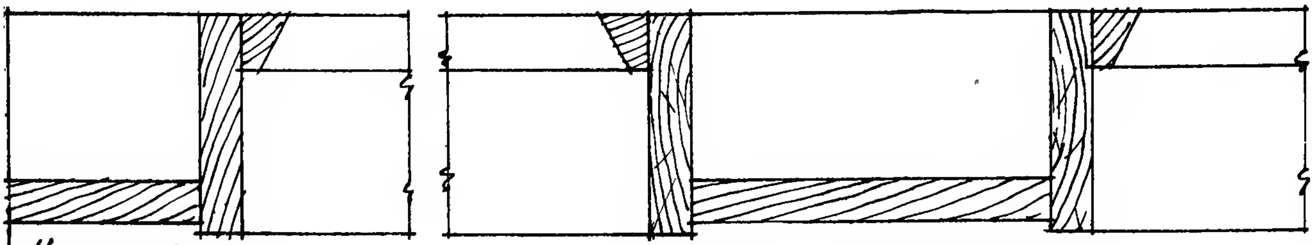
· ONTARIO · HOUSING · COMMITTEE ·



THE PLAN & ELEVATIONS ARE 3/8-INCH SCALE; THE SECTIONS ARE HALF SIZE •

• A PANELED VESTIBULE •

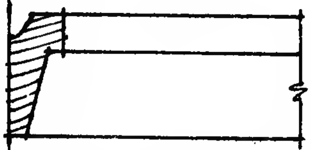
WM. ROBINSON SAFFORD, ARCHITECT.



HALF BEAM FULL BEAM

Wall

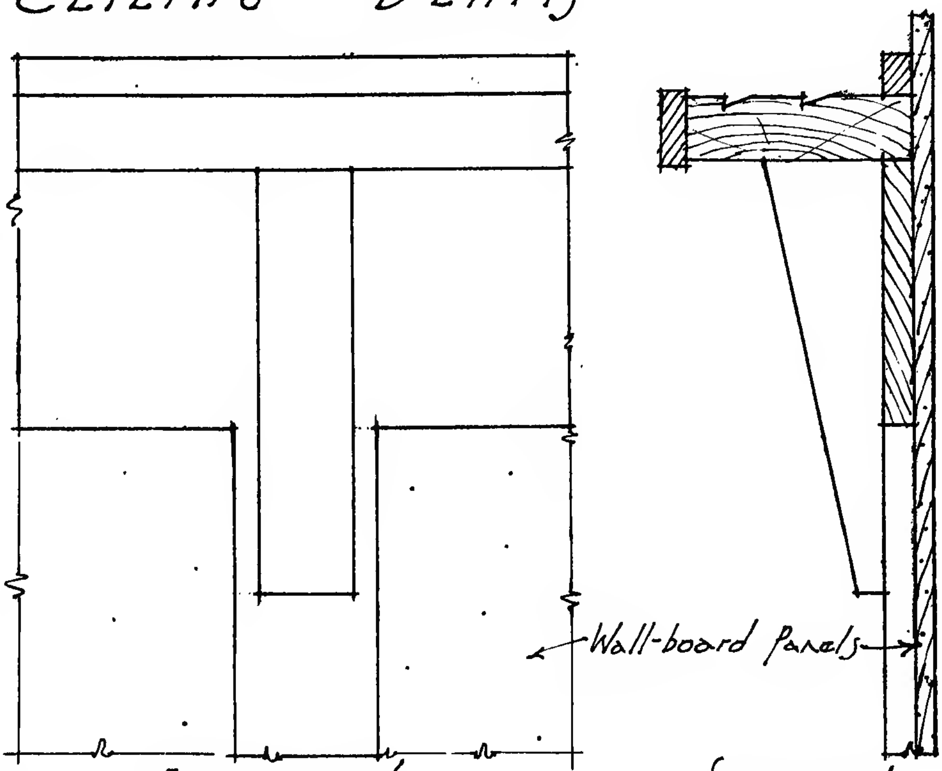
CEILING BEAMS



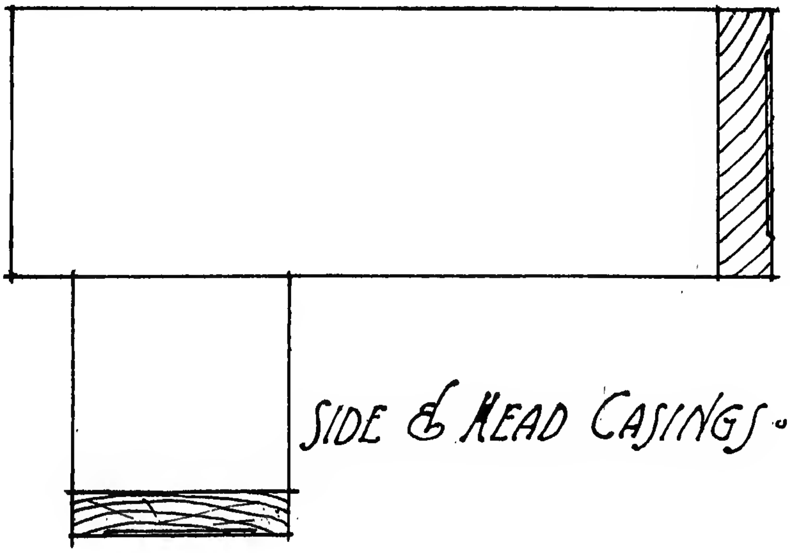
PICTURE MOLD

INTERIOR TRIM

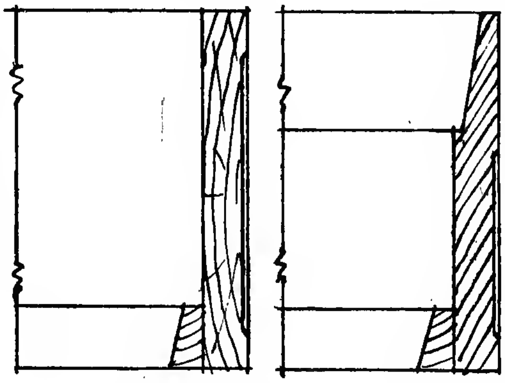
SCALE:
3 Inches to
1 foot
YE PLANRY, ARCH'TS.



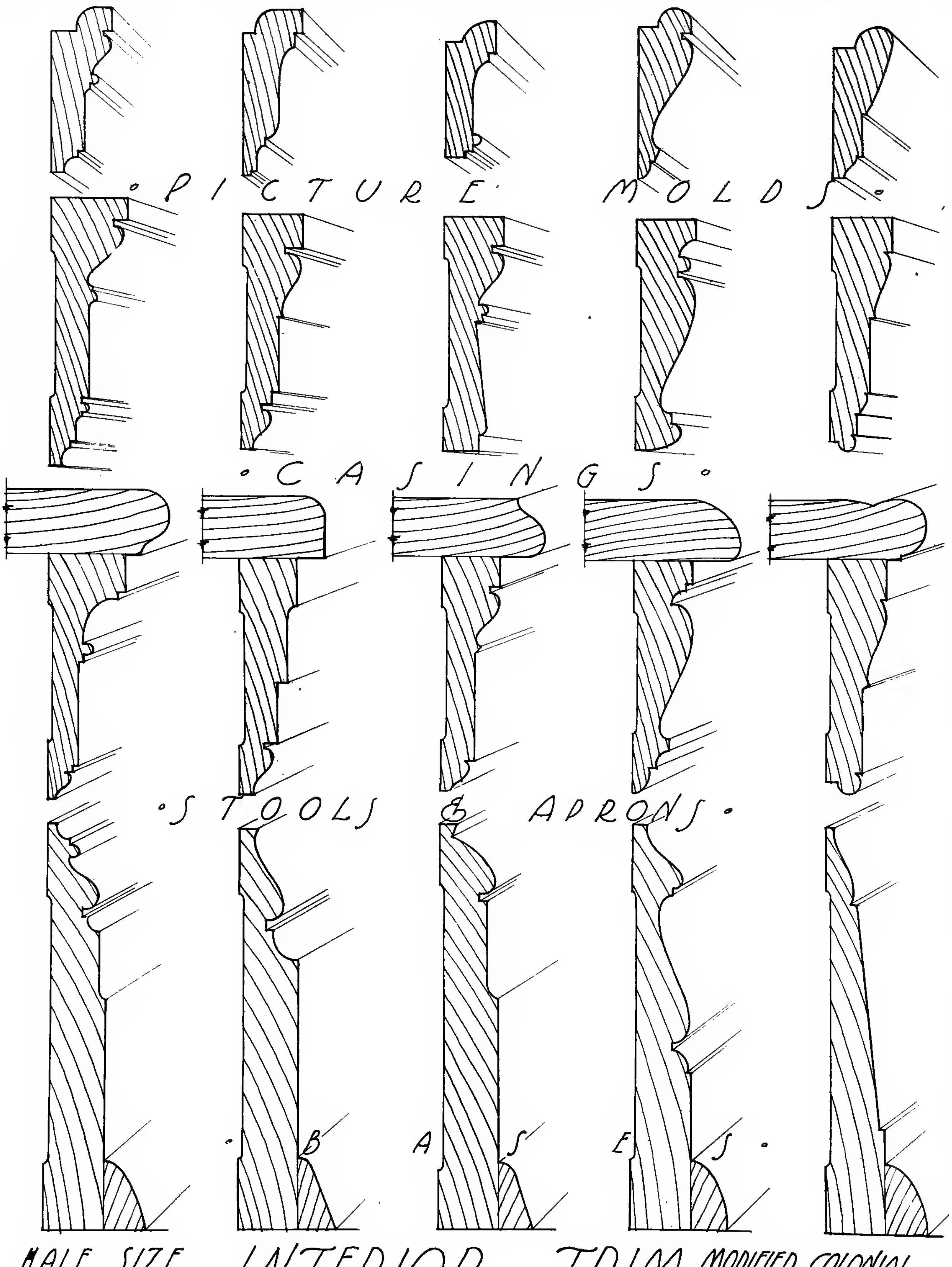
ELEVATION SECTION
PLATE RAIL



SIDE & HEAD CASINGS



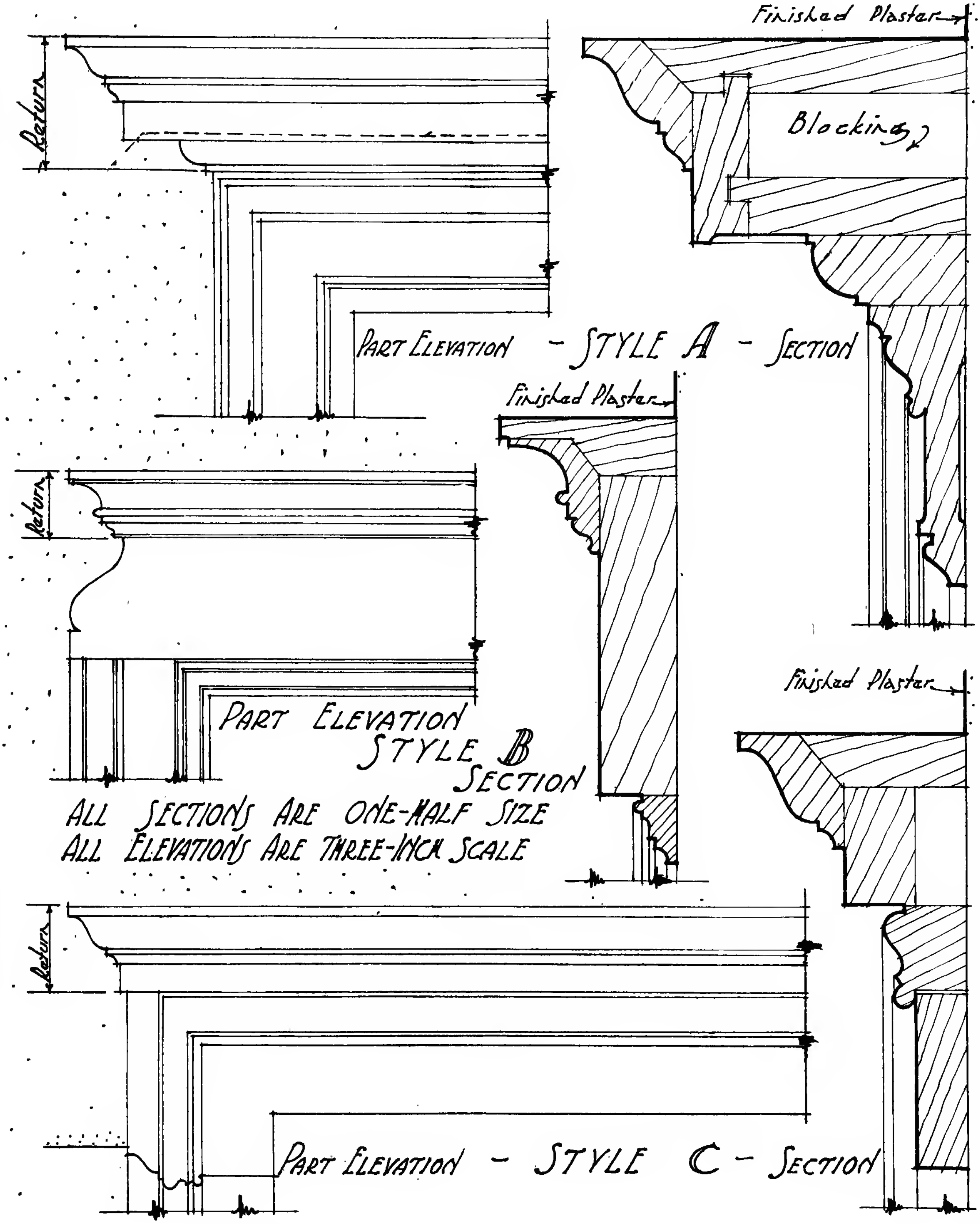
BASES



HALF SIZE
DETAILS

· INTERIOR TRIM ·

MODIFIED COLONIAL
FOR WHITE FINISH



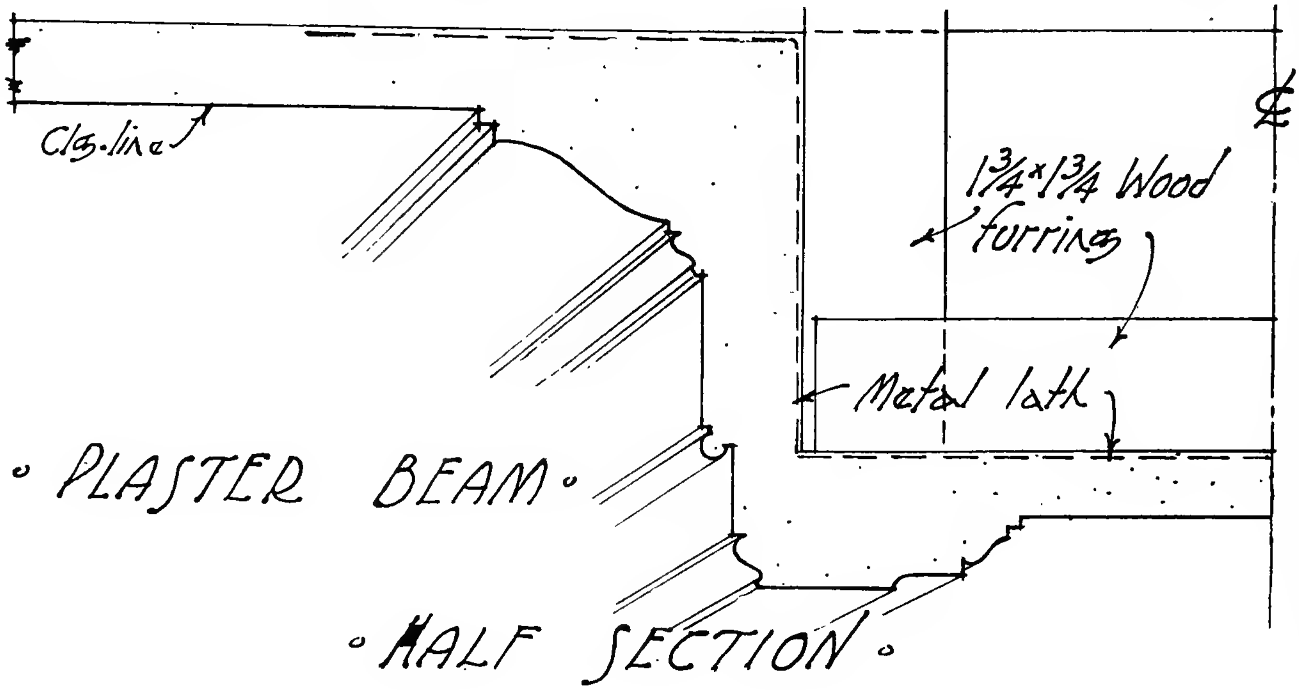
PART ELEVATION - STYLE A - SECTION

PART ELEVATION STYLE B SECTION

ALL SECTIONS ARE ONE-HALF SIZE
ALL ELEVATIONS ARE THREE-INCH SCALE

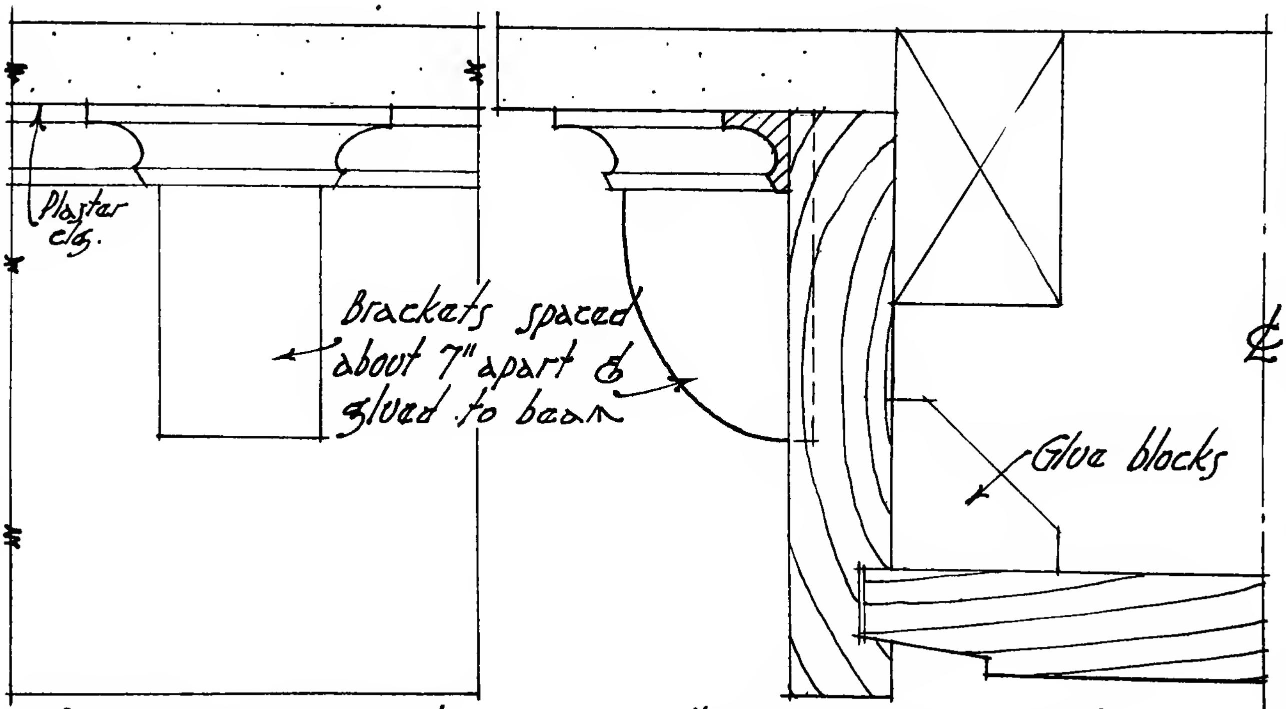
PART ELEVATION - STYLE C - SECTION

INTERIOR HEAD-CASINGS



· PLASTER BEAM ·

· HALF SECTION ·

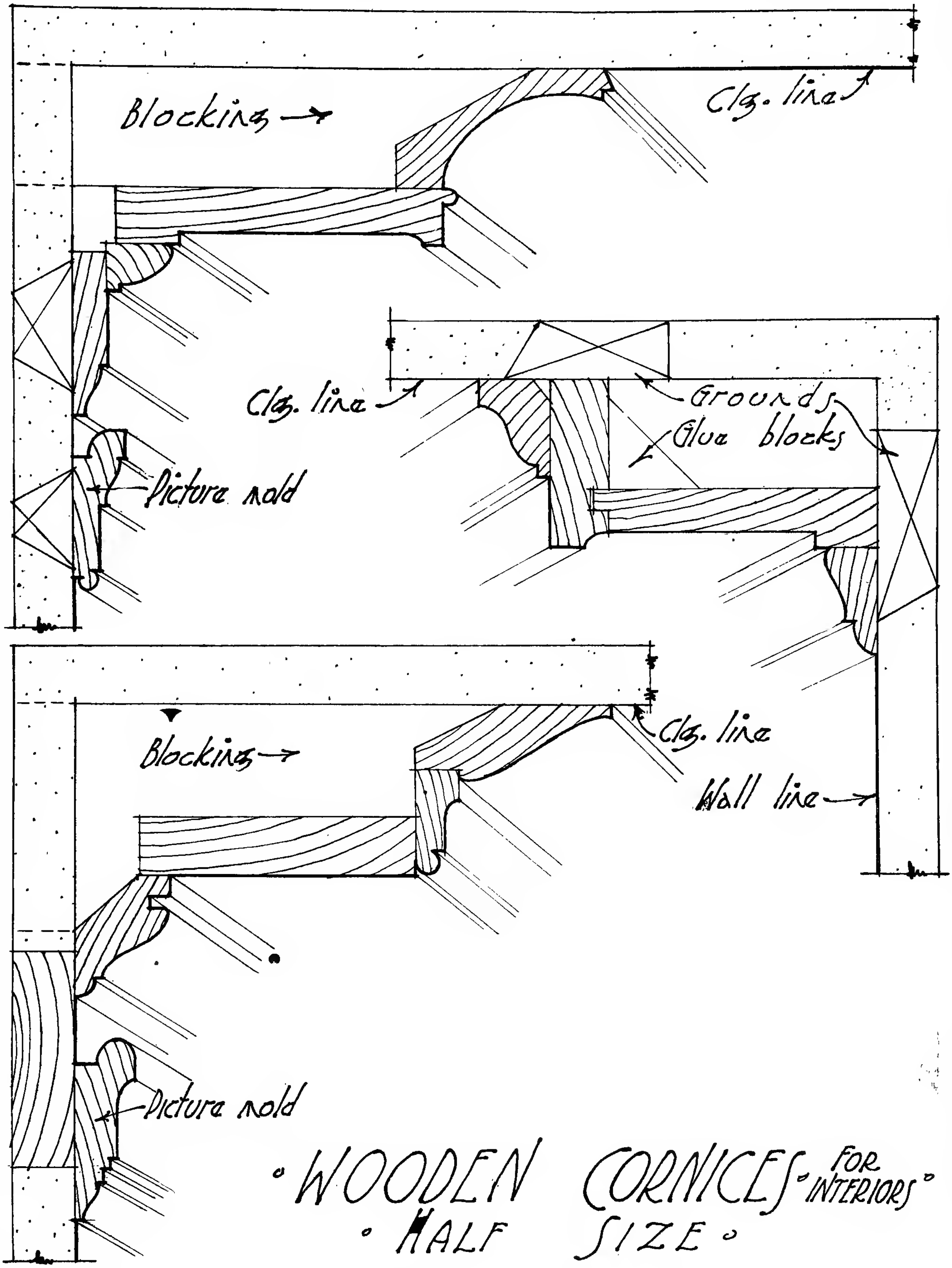


· PART ELEVATION · · HALF SECTION ·

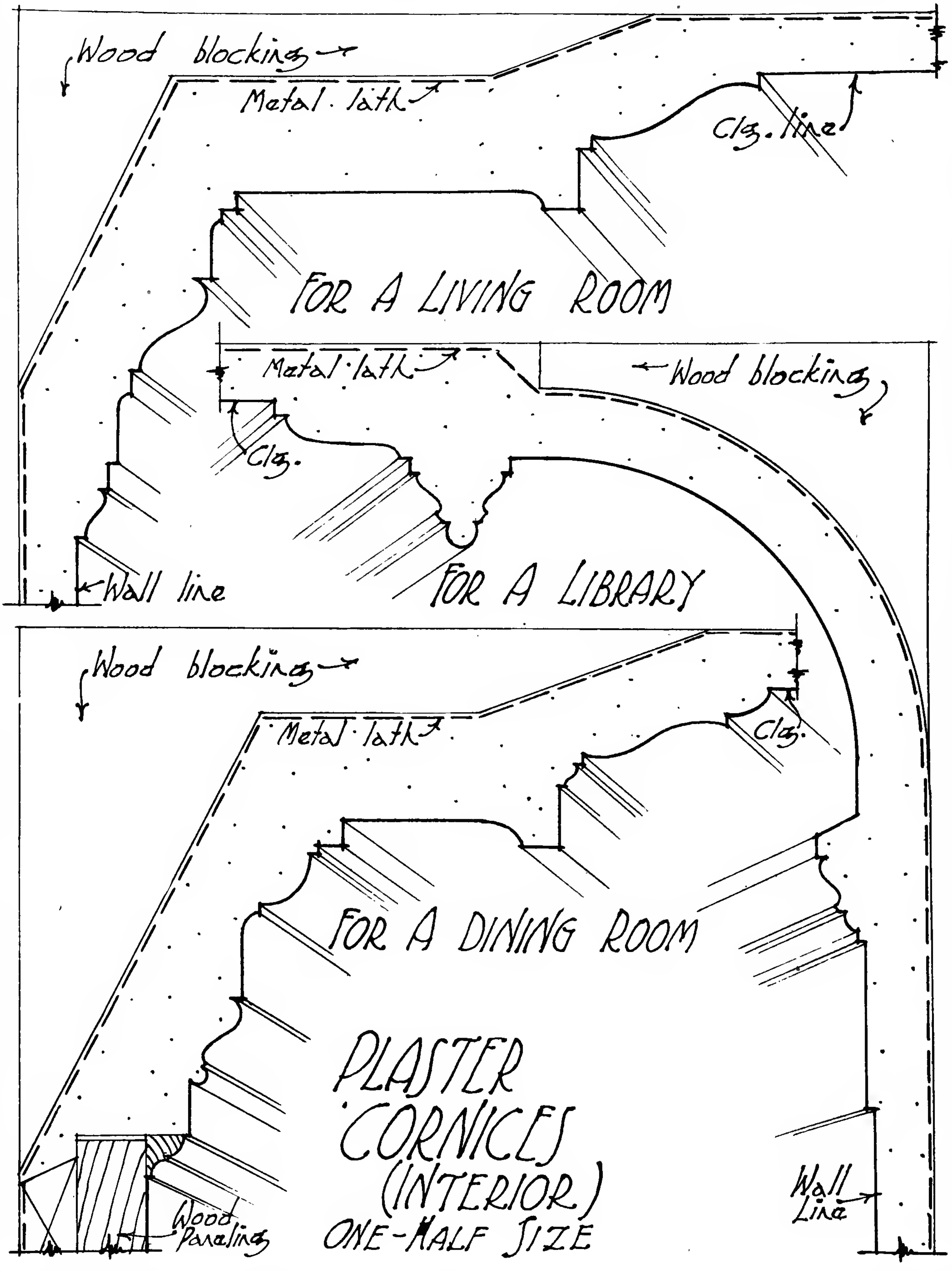
WOODEN BEAM ·

· CEILING BEAMS ·

· HALF SIZE ·

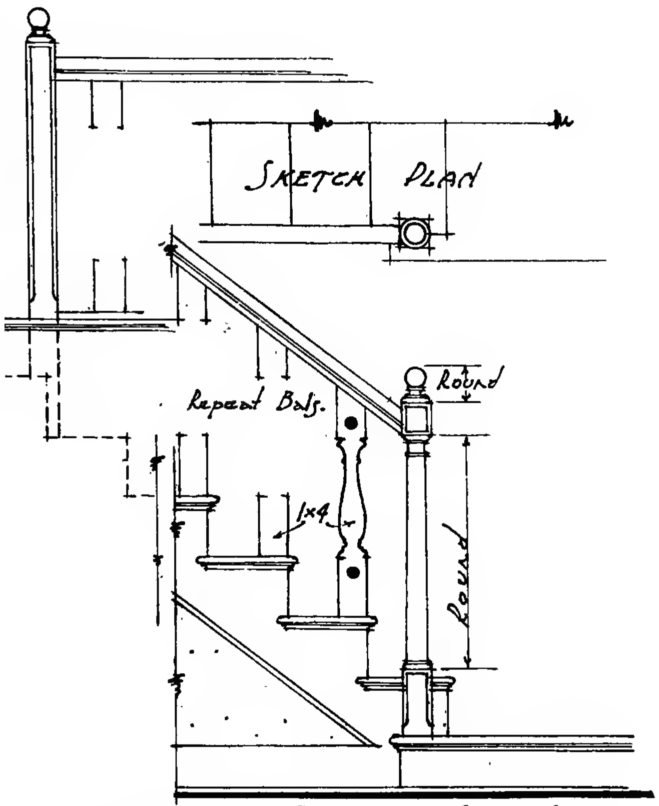


∘WOODEN CORNICES∘ FOR INTERIORS∘
∘HALF SIZE∘

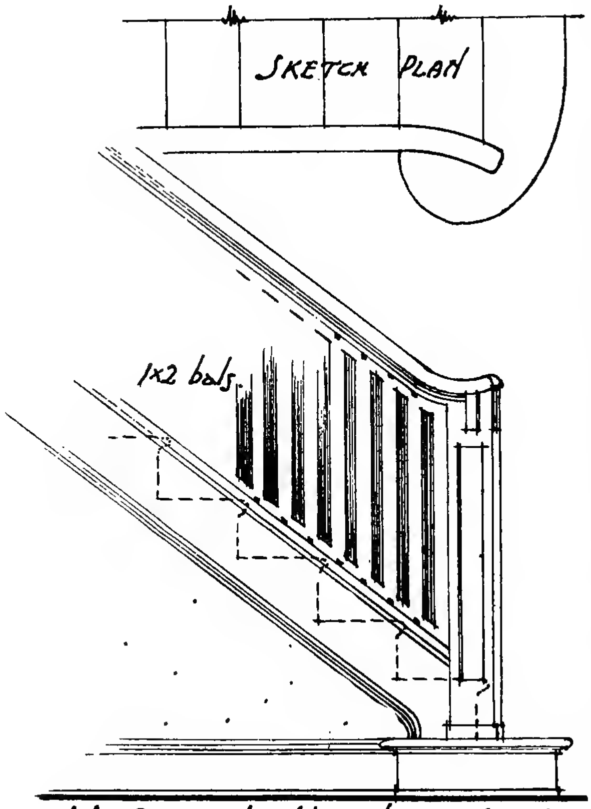


PLASTER CORNICES (INTERIOR)

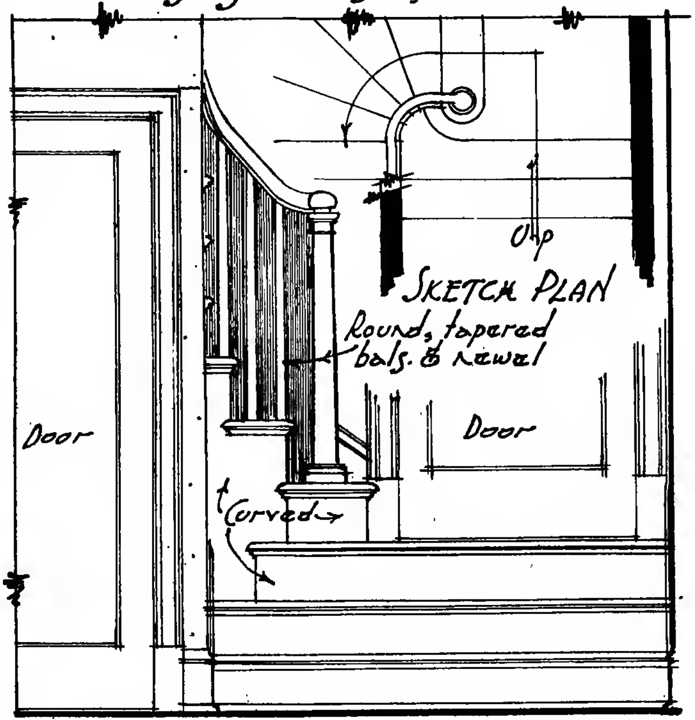
ONE-HALF SIZE



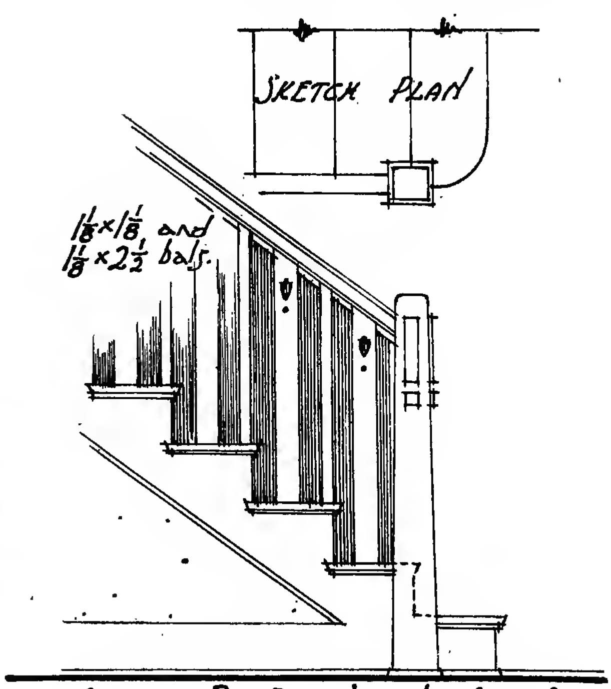
CHAS. S. FROST, ARCH'T.



W. GIBBONS UFFENDELL, ARCH'T.



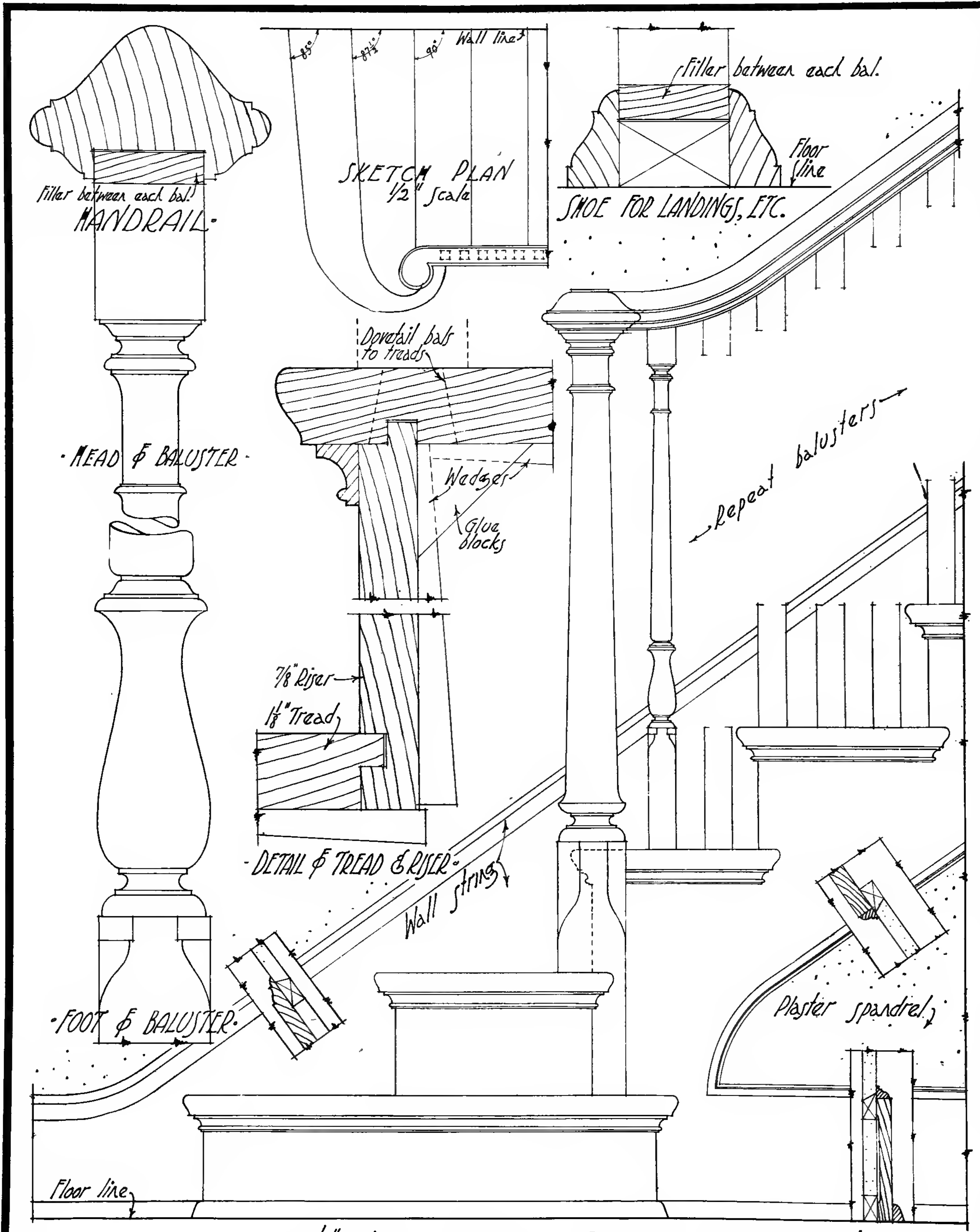
JOHN R. LAW, ARCHITECT.



CHAS. P. RAWSON, ARCH'T.

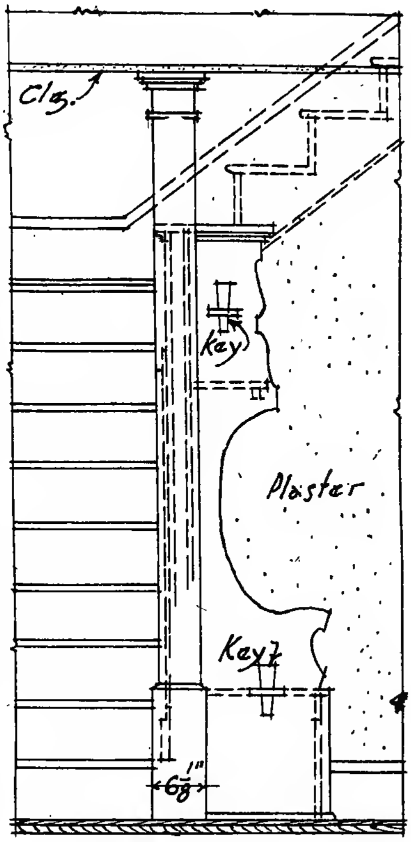
STAIR · DESIGNS

Scale, 1/2 inch to 1 foot

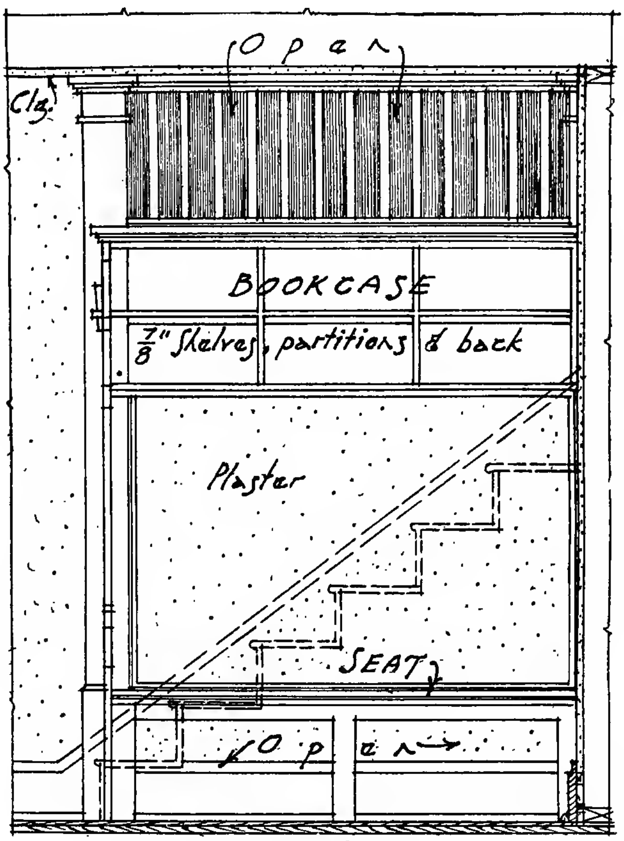


·1½" INCH SCALE PART ELEVATION·

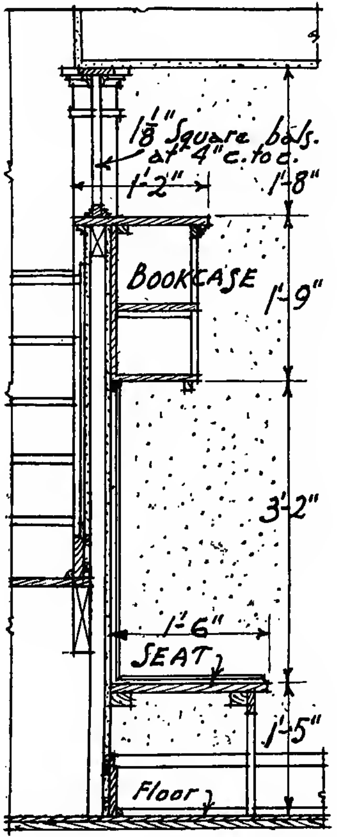
·THE DETAILS ARE HALF SIZE· ·A STAIR· ·JIM T. POMEROY, ARCHITECT·



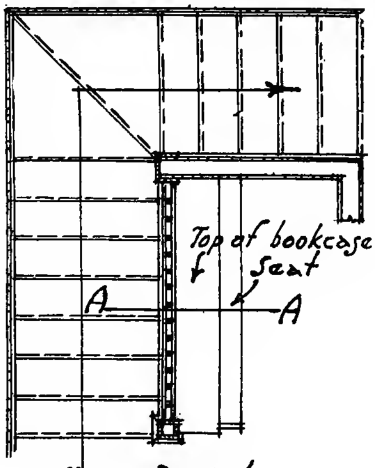
· END VIEW ·



· FRONT VIEW ·



SECTION A-A

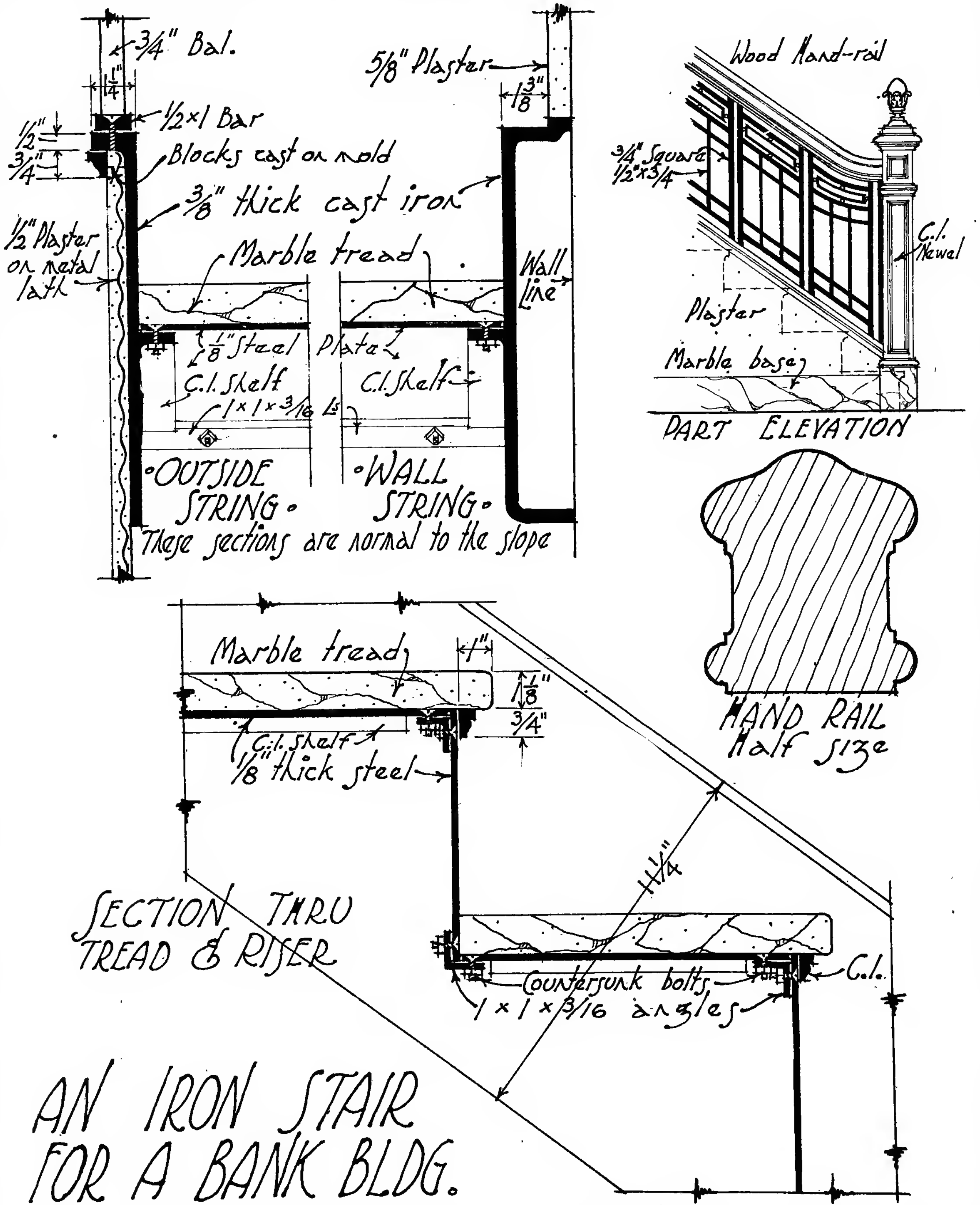


· PLAN ·

· DETAILS OF A COMBINATION STAIR, BOOKCASE & SEAT ·

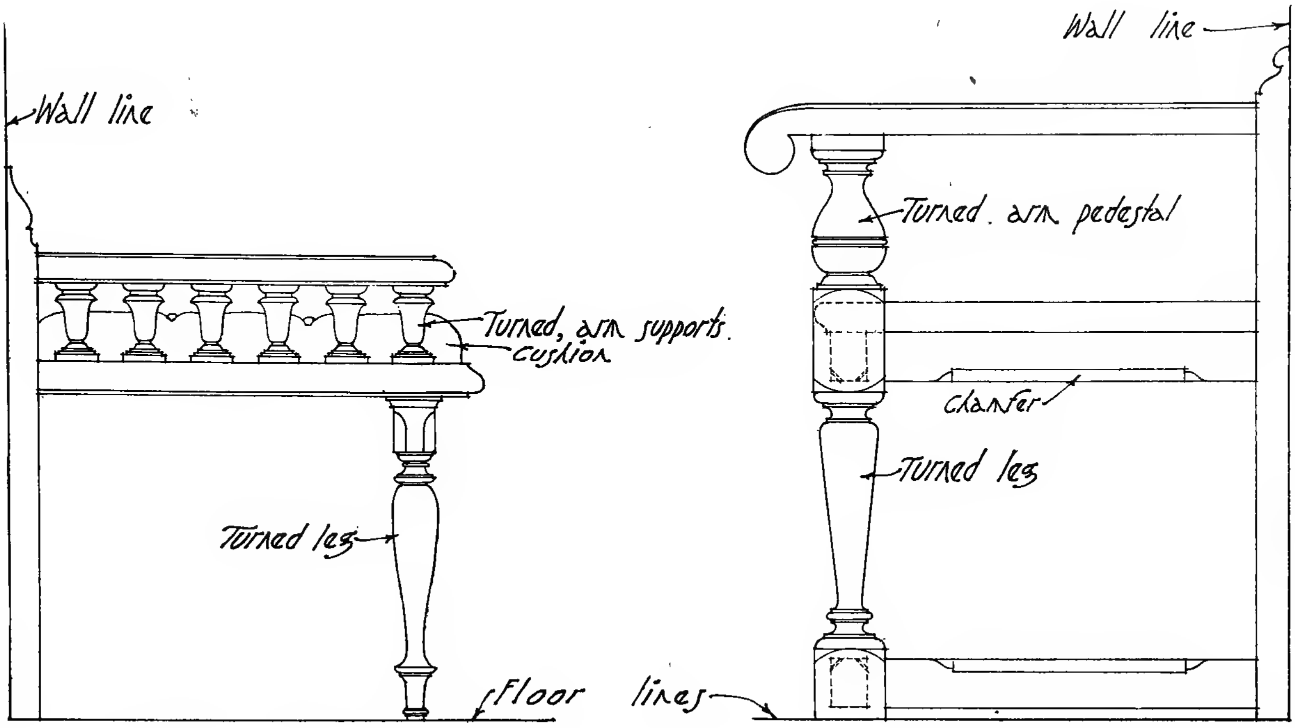
The elevations & section are 1/2-inch scale.
The plan is 1/4-inch Scale.

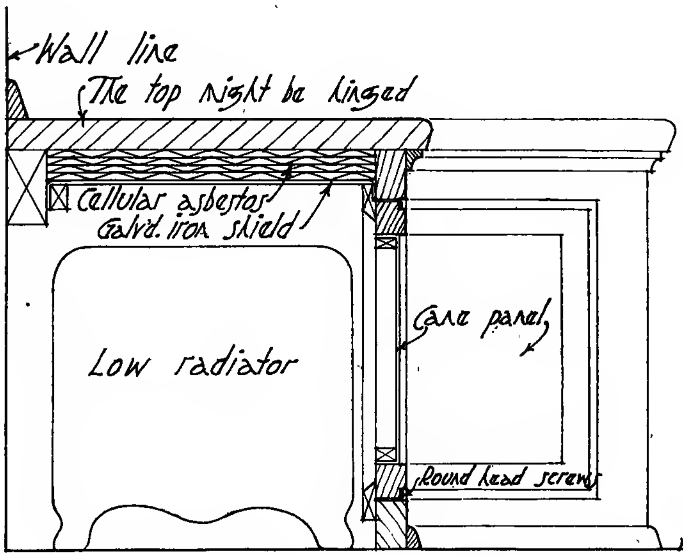
AN IRON STAIR FOR A BANK BLDG.



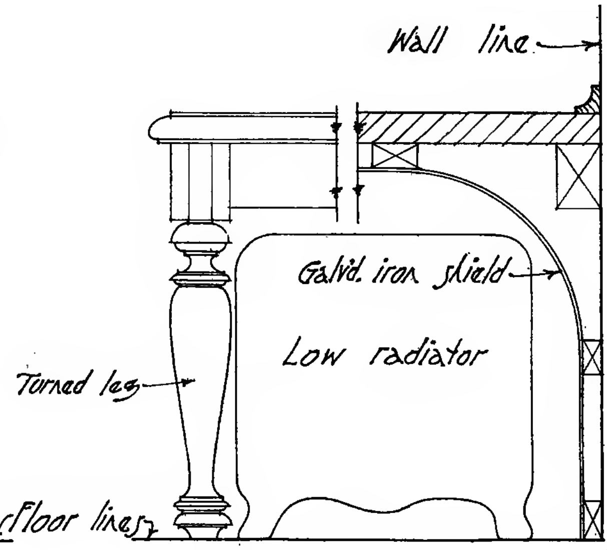
The elevation is 1/2-inch scale; the details are 3-inch scale.

FRANK W. MOORE & DON CARLOS YOUNG, JR., ARCH'TS.





· SECTION · · PART ELEV.

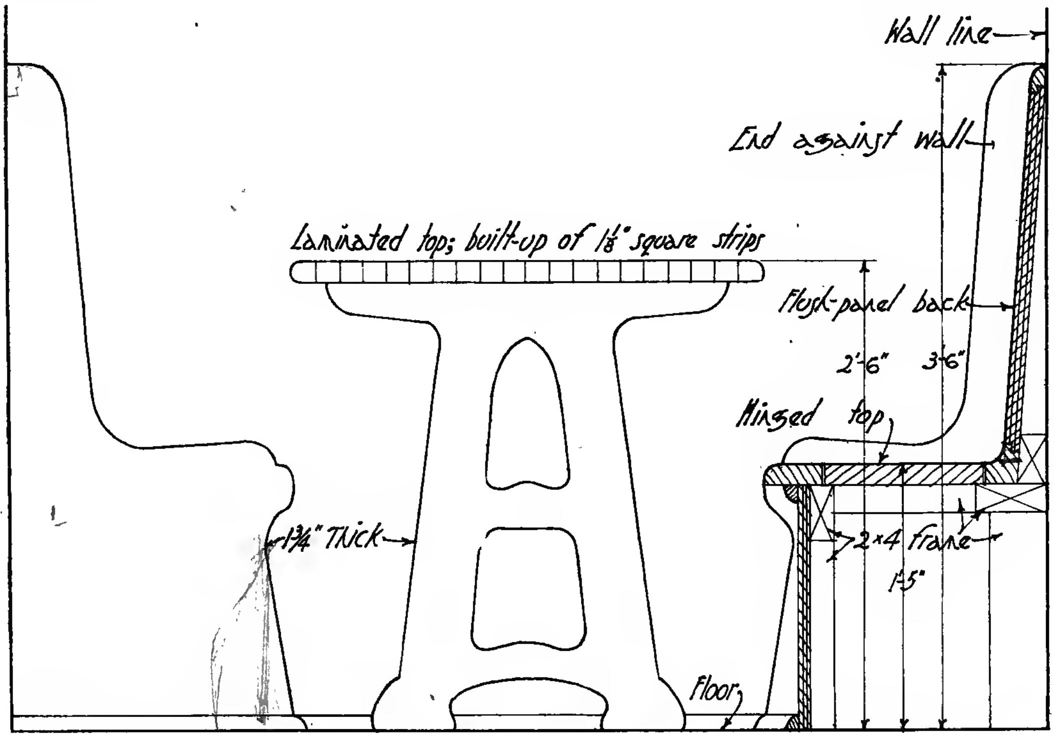


· PART ELEV. · PART SECTION ·

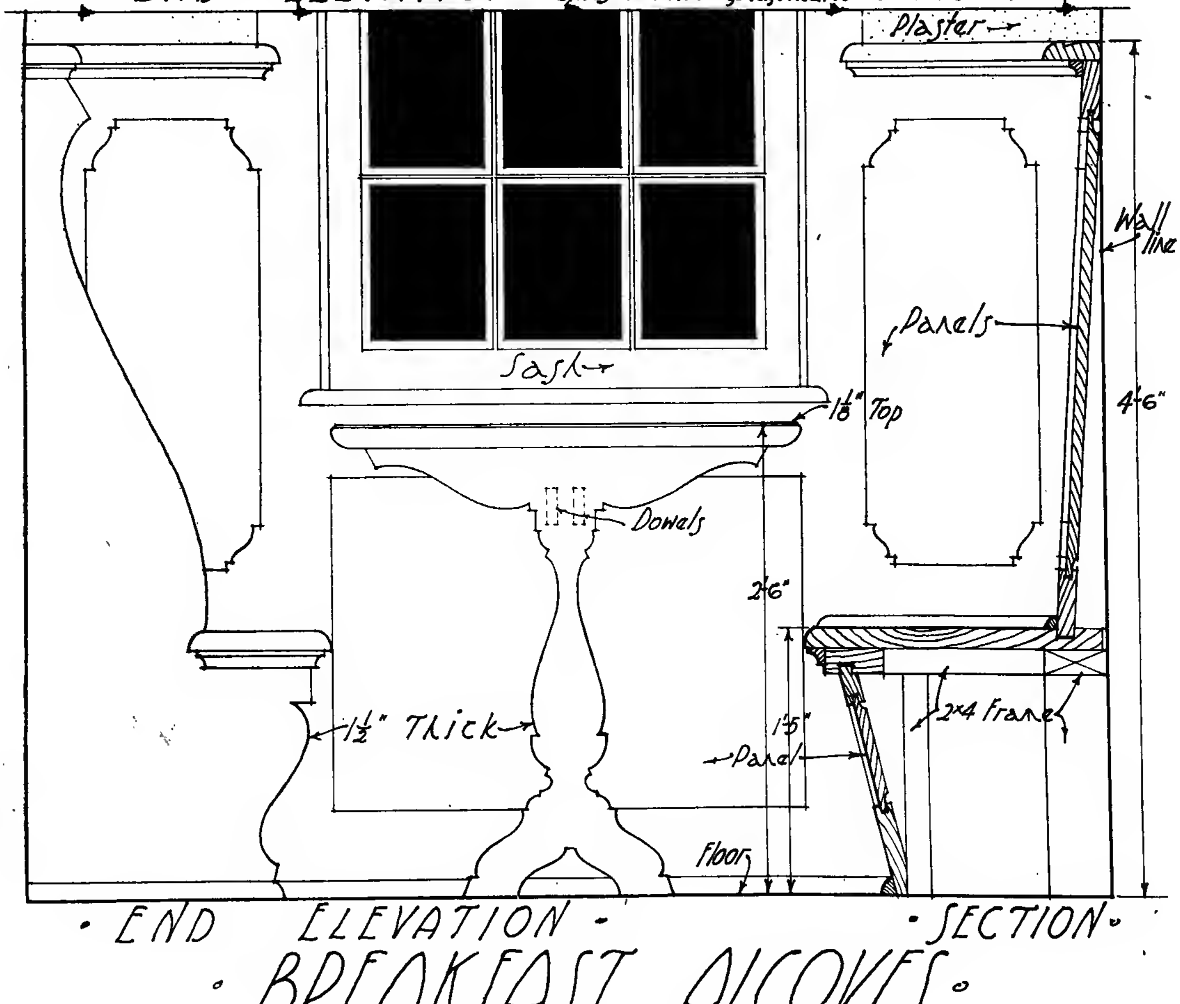
· BUILT-IN SEATS ·

· 1½ - INCH SCALE ·

WM. ROBINSON · SAFFORD, ARCHITECT.



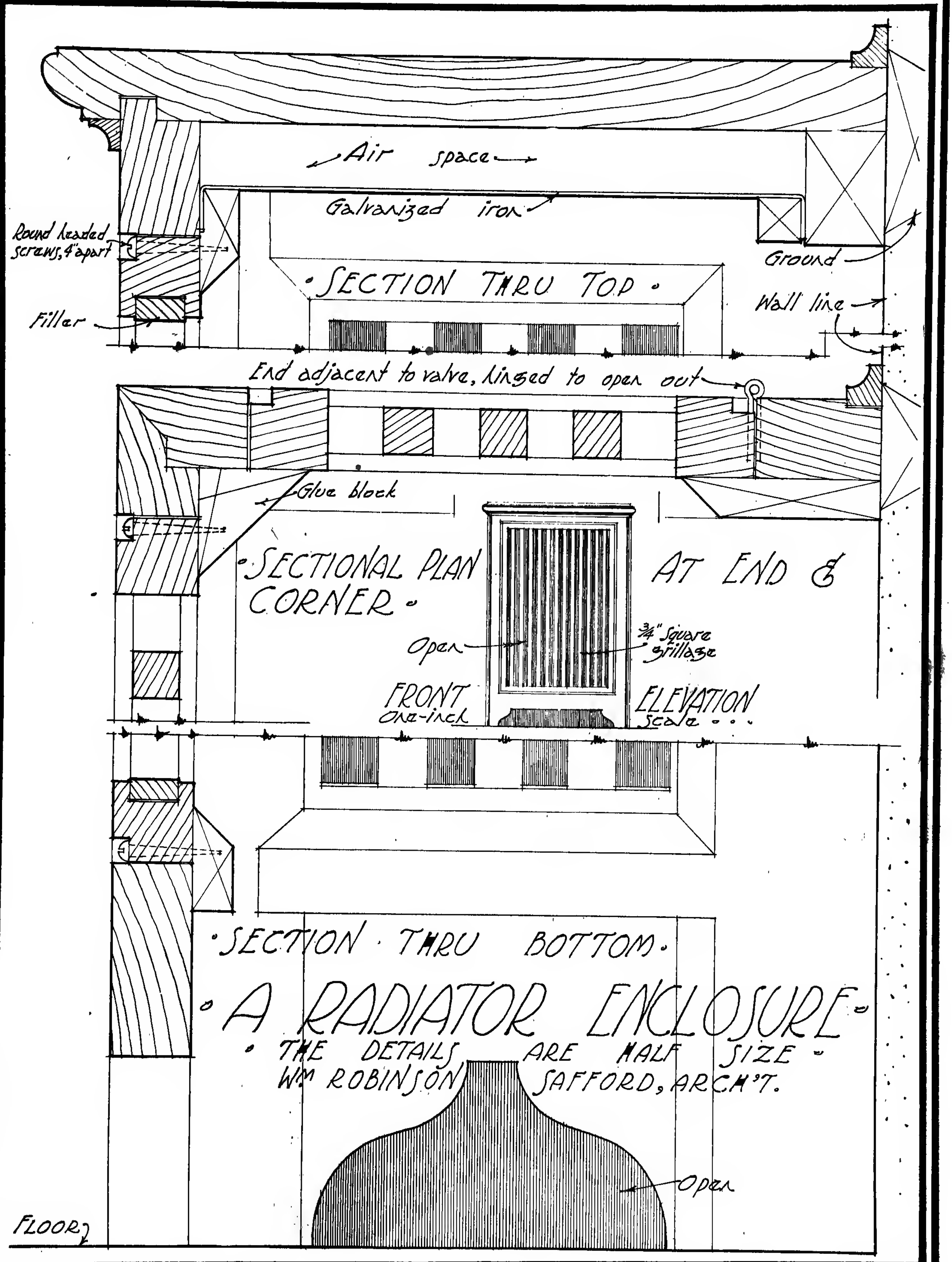
• END ELEVATION • CHAS. E. WHITE, JR., ARCH'T. SECTION •



• END ELEVATION • • SECTION •

• BREAKFAST ALCOVES •

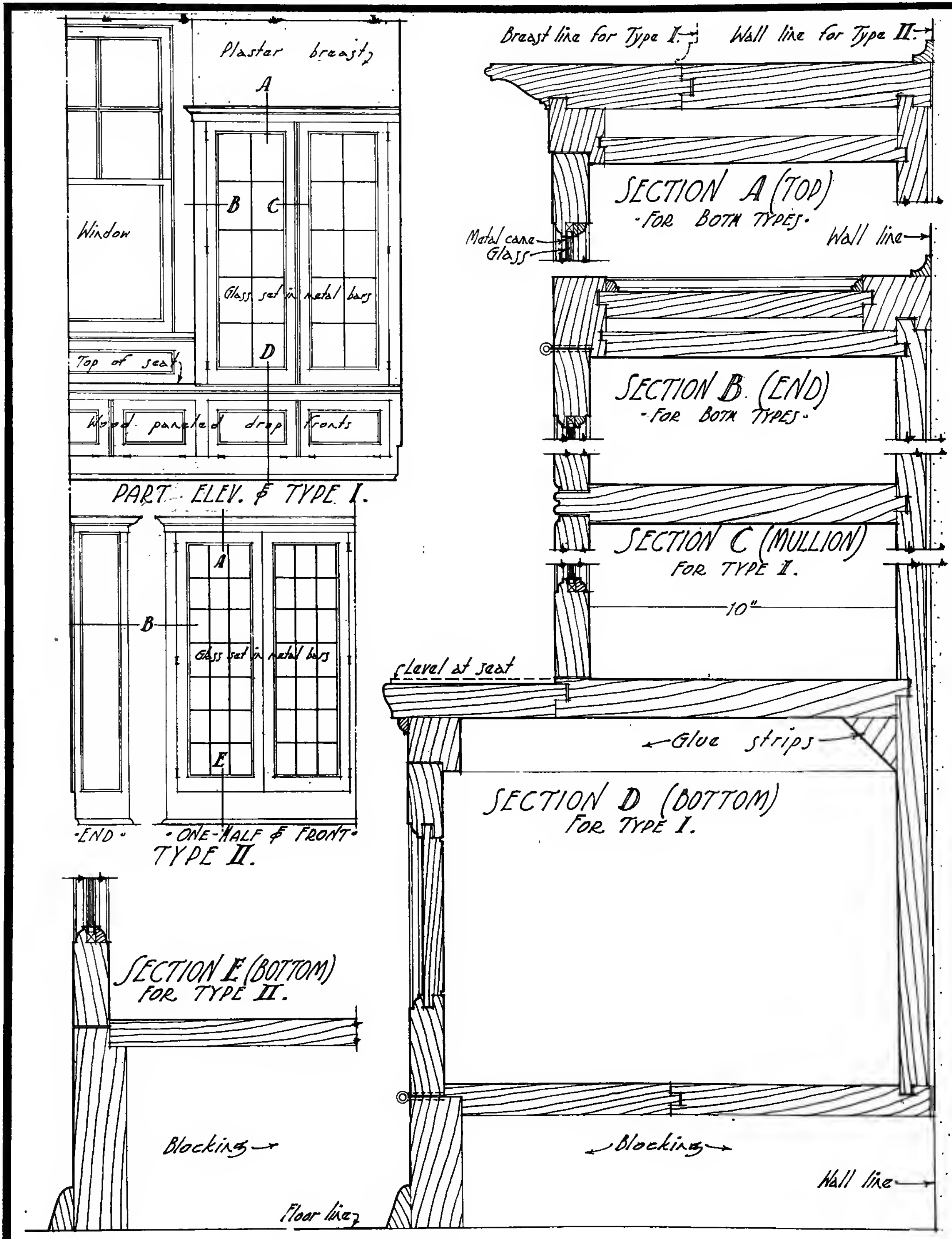
• ONE INCH SCALE •



A RADIATOR ENCLOSURE

THE DETAILS ARE HALF SIZE

WM ROBINSON SAFFORD, ARCH'T.

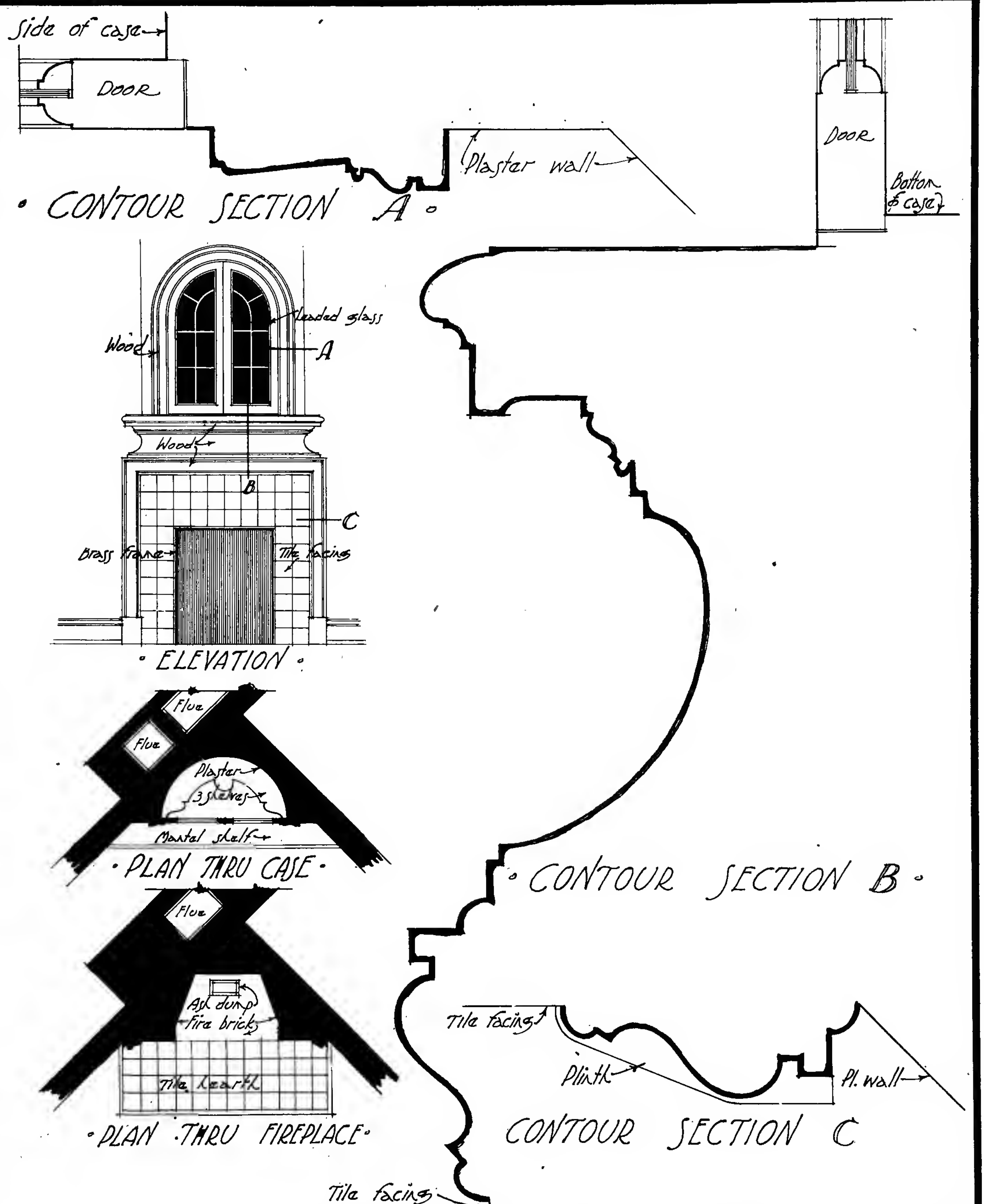


THE ELEVATIONS ARE ½-INCH SCALE ∘

BOOKCASES

∘ THE DETAILS ARE 3-INCH SCALE

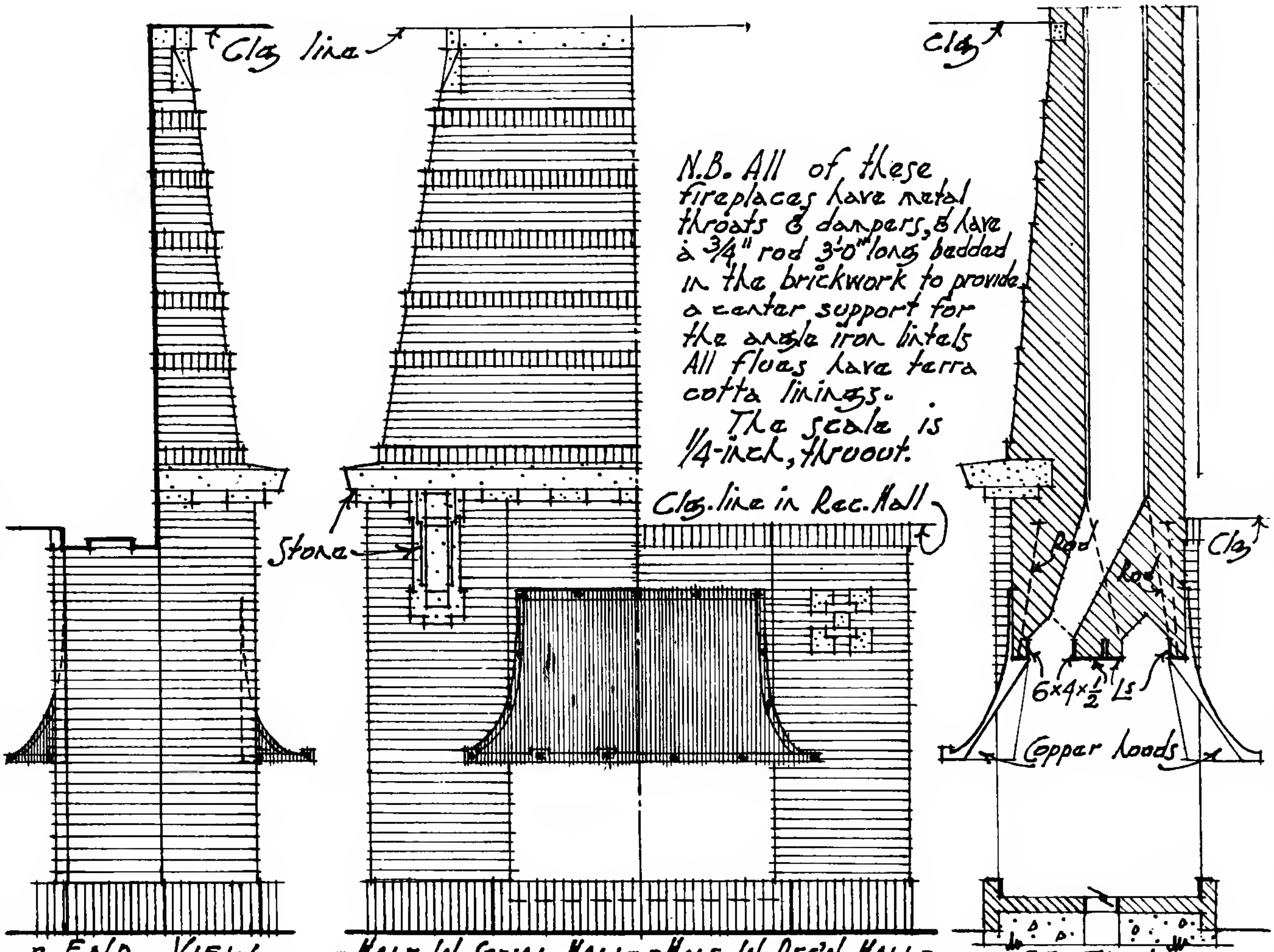
CHAS. E. WHITE, JR., ARCH'T.



A CORNER FIREPLACE & CHINA CASE

THE SECTIONS ARE HALF SIZE; THE ELEVATION & PLANS ARE 3/8-INCH SCALE

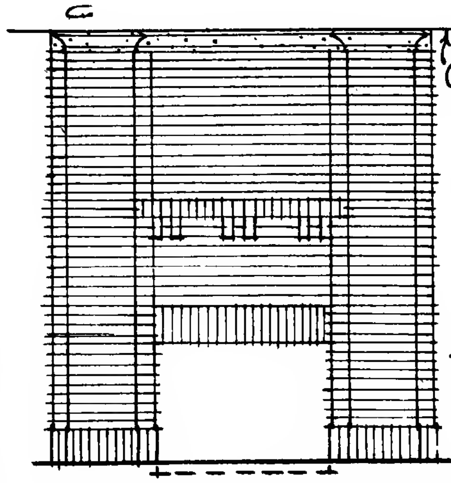
JIM T. POMEROY, ARCH'T.



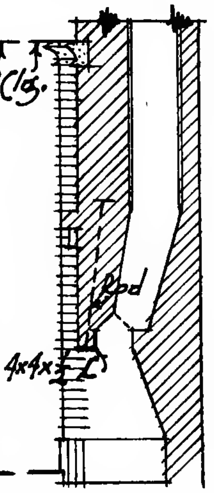
N.B. All of these fireplaces have metal throats & dampers, & have a ¾" rod 3'-0" long bedded in the brickwork to provide a center support for the angle iron lintels. All flues have terra cotta linings.
The scale is ¼-inch, throout.

• END VIEW • • HALF IN SOCIAL HALL • • HALF IN REC'N. HALL • • SECTION •

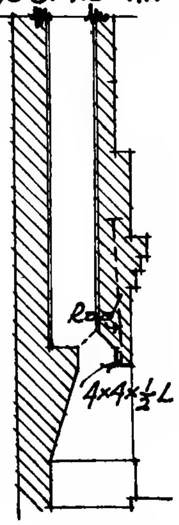
• DOUBLE FIREPLACE BETWEEN SOCIAL HALL & ENTRANCE HALL •



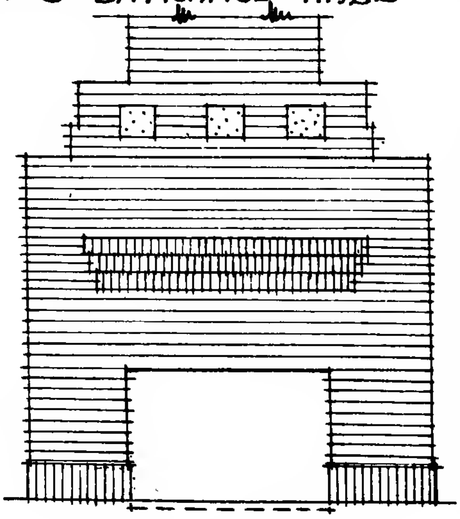
• IN THE RATHSKELLER •



SECTION



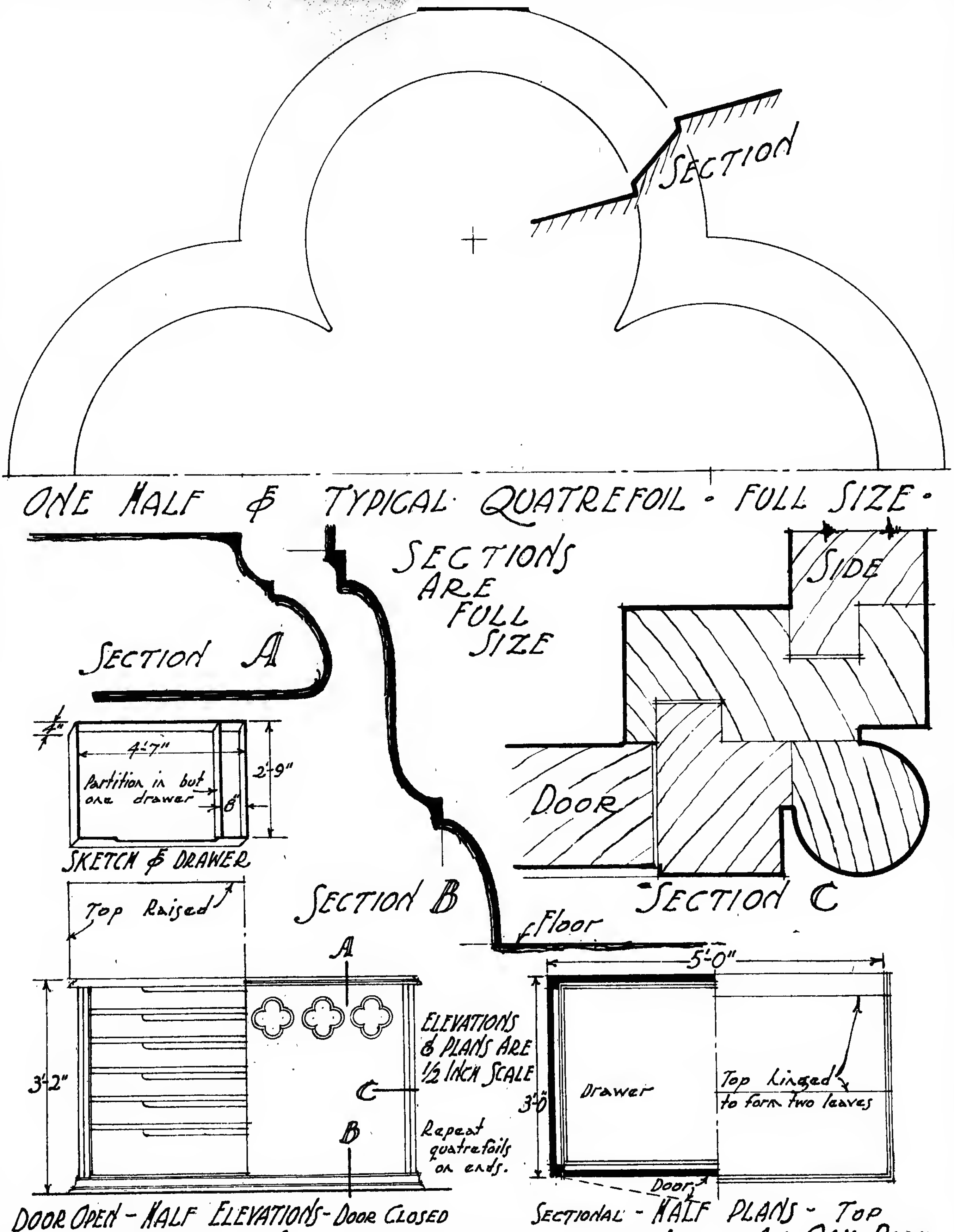
SECTION



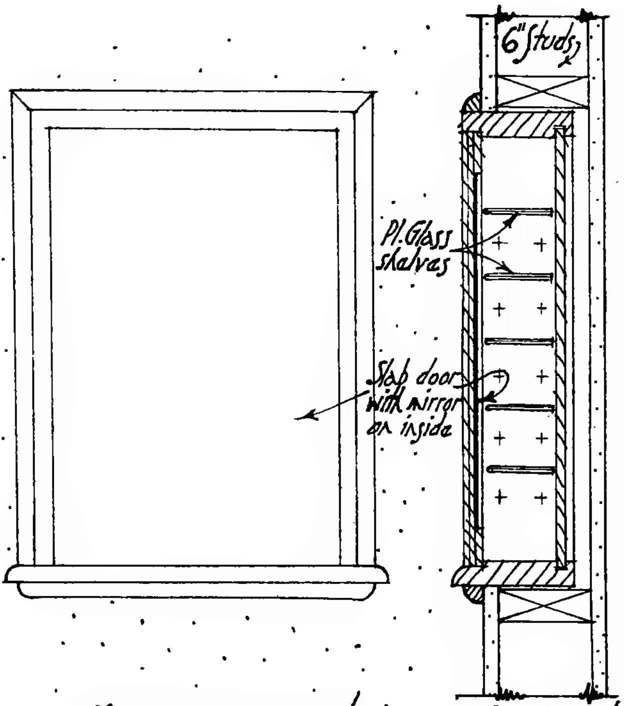
• ON A PORCH •

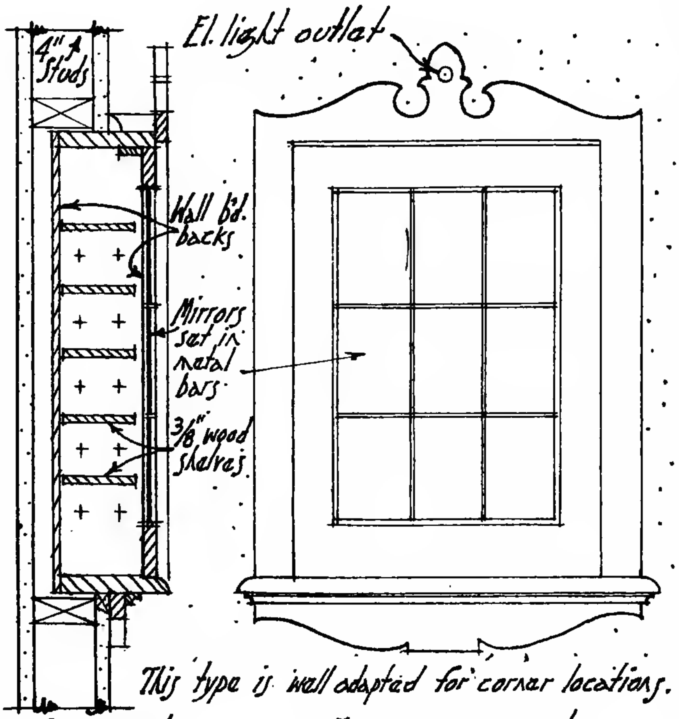
BRICK FIREPLACES FOR A COUNTRY CLUB AT OAK PARK, ILL.

PATTON, ROBERTS, DRUMMOND & WHITE, ASSOCIATED ARCH'TS.


SECTION
ONE HALF OF TYPICAL QUATREFOIL - FULL SIZE -
SECTION A
SECTIONS ARE FULL SIZE
SIDE
DOOR
SECTION C
4"
4'-7"
2'-9"
Partition in but one drawer
8"
SKETCH OF DRAWER
SECTION B
Floor
Top Raised
A
3'-2"
C
B
ELEVATIONS & PLANS ARE 1/2 INCH SCALE
Repeat quatrefoils on ends.
5'-0"
3'-0"
Drawer
Top hinged to form two leaves
Door
DOOR OPEN - HALF ELEVATIONS - DOOR CLOSED
SECTIONAL - HALF PLANS - TOP

CHAS. E. WHITE, JR., ARCHITECT. - A SACRISTY CABINET - AT OAK PARK, ILLINOIS

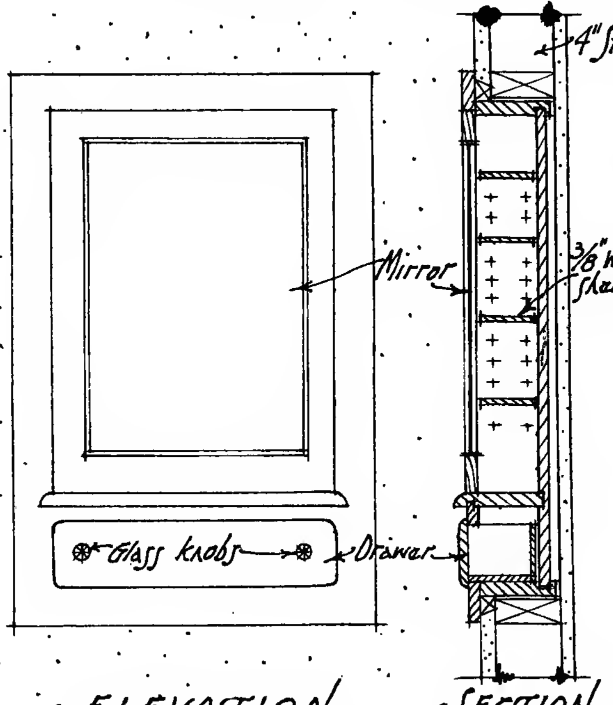


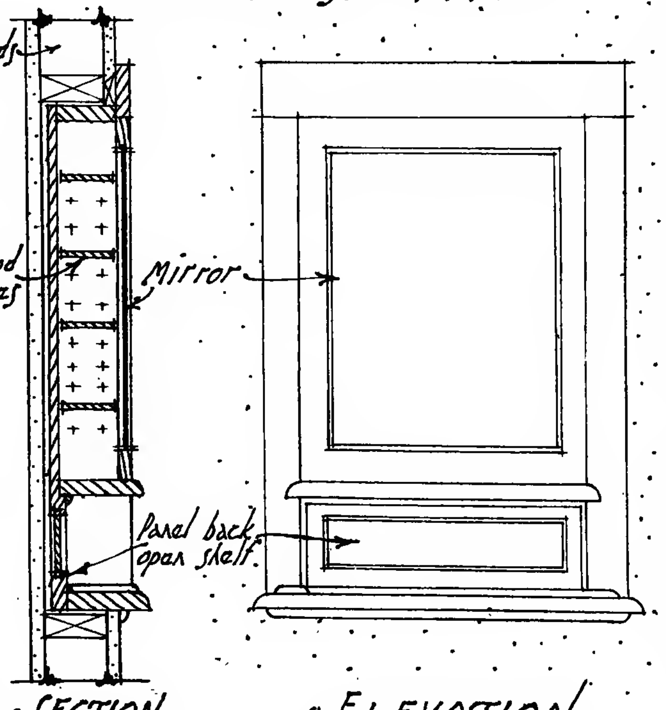


This type is well adapted for corner locations.

·ELEVATION· ·SECTION· ·SECTION· ·ELEVATION·

·FLUSH TYPE· ·SEMI-FLUSH TYPE·





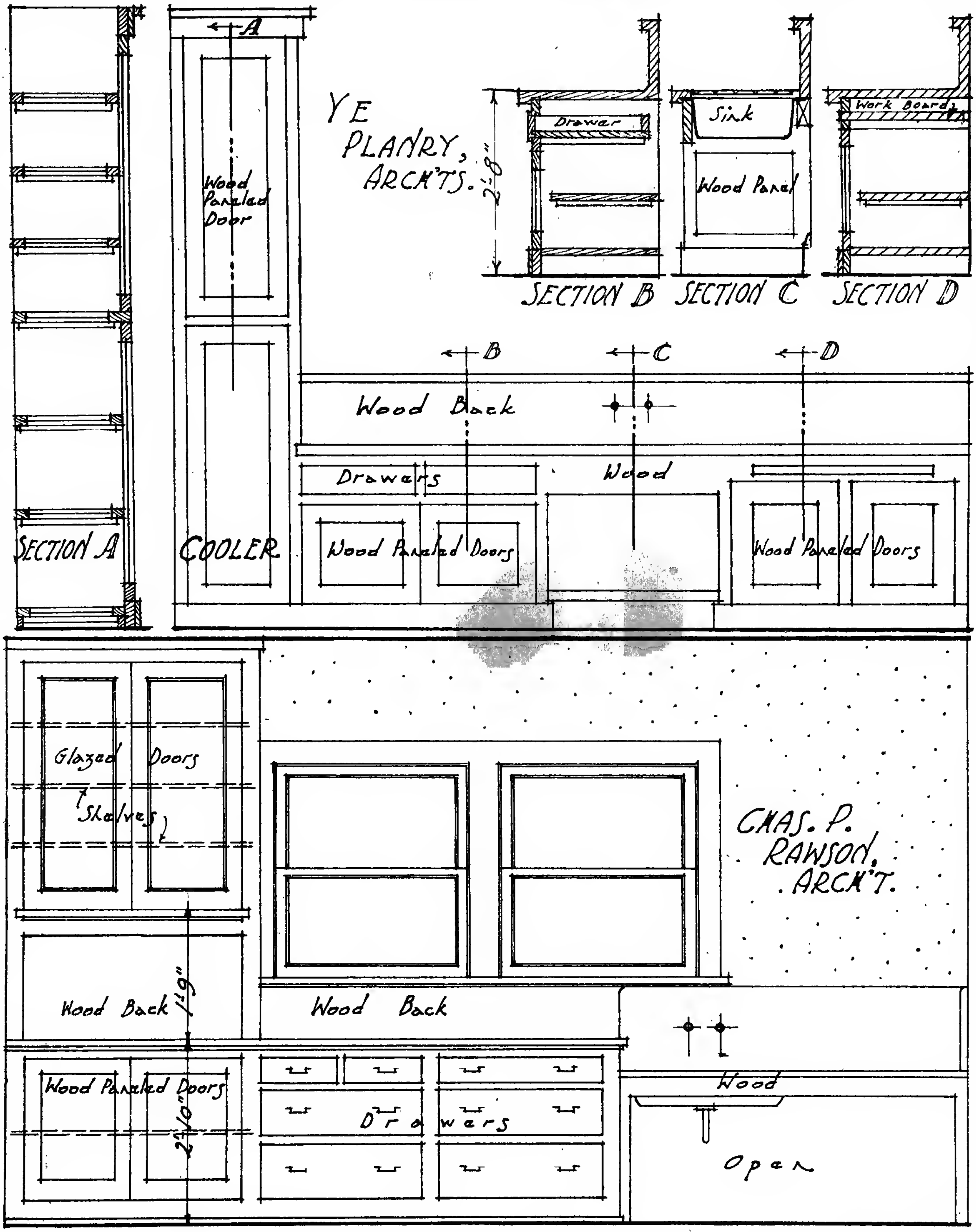
·ELEVATION· ·SECTION· ·SECTION· ·ELEVATION·

·WITH DRAWER· ·WITH OPEN SHELF·

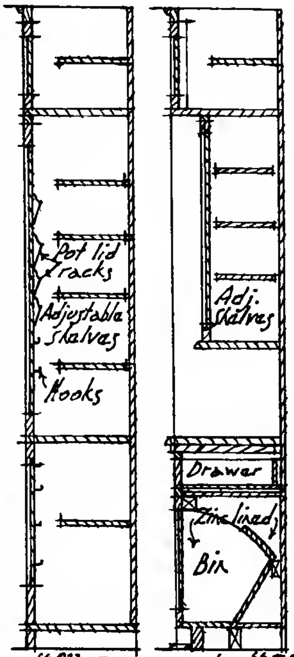
N.B. All types have adjustable shelves.

·MEDICINE CABINETS·

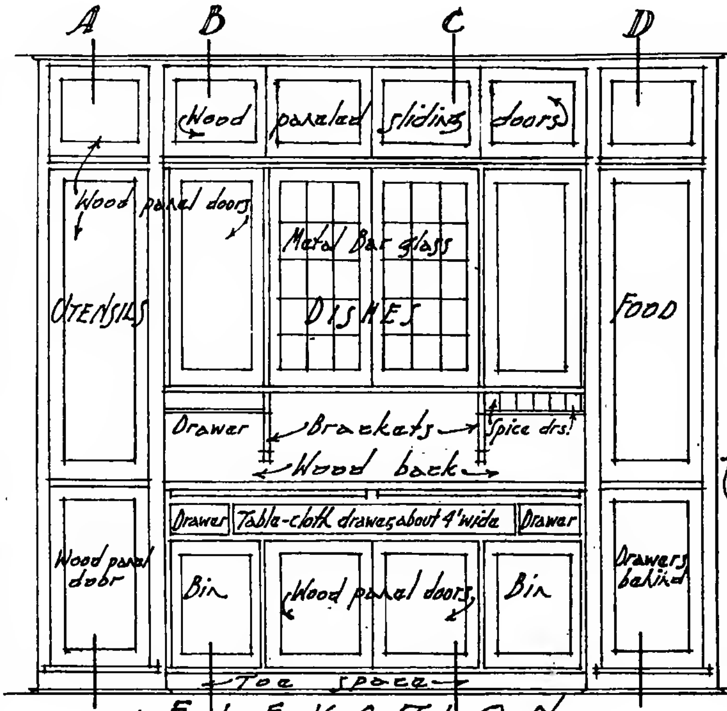
·ONE INCH SCALE·



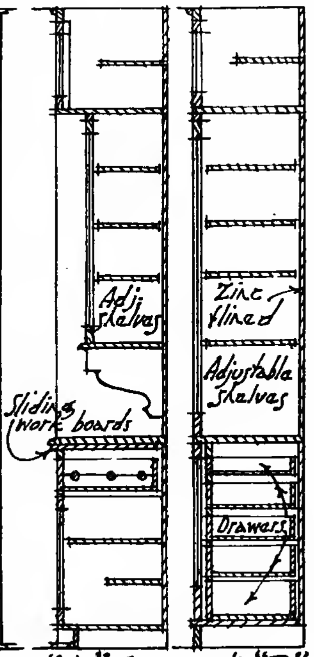
KITCHEN · CUPBOARDS · 1/2 Inch to 1 foot; Scale.



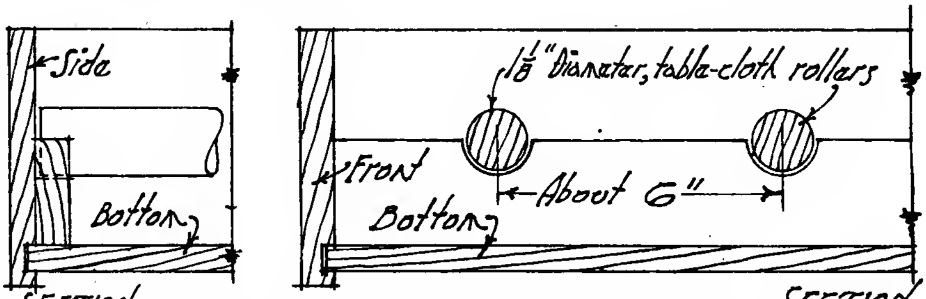
"A"-SECTIONS-"B"



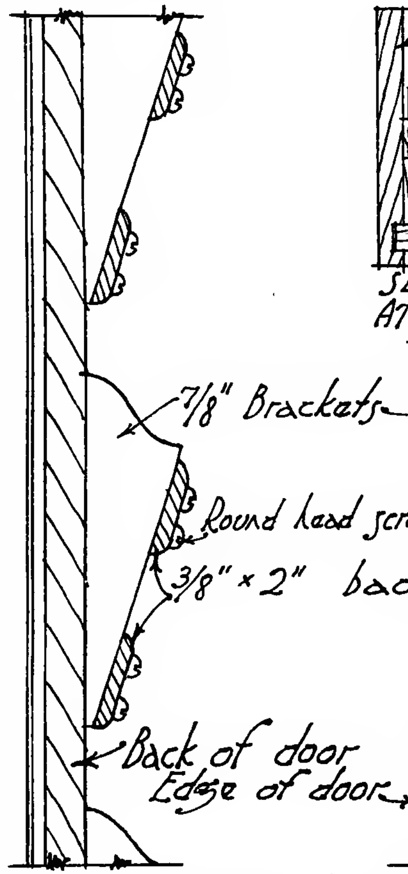
· ELEVATION ·

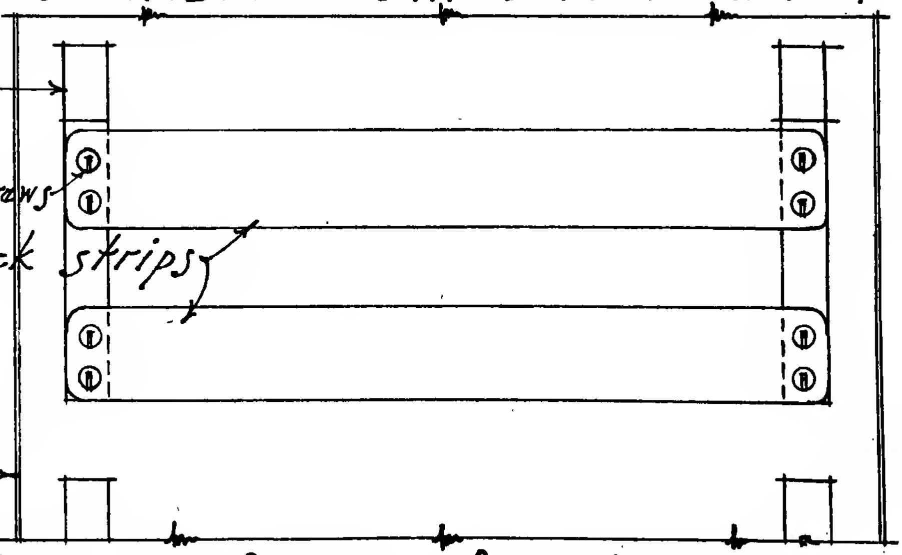


"C"-SECTIONS-"D"



SECTION AT SIDE · TABLE-CLOTH DRAWER · SECTION AT FRONT



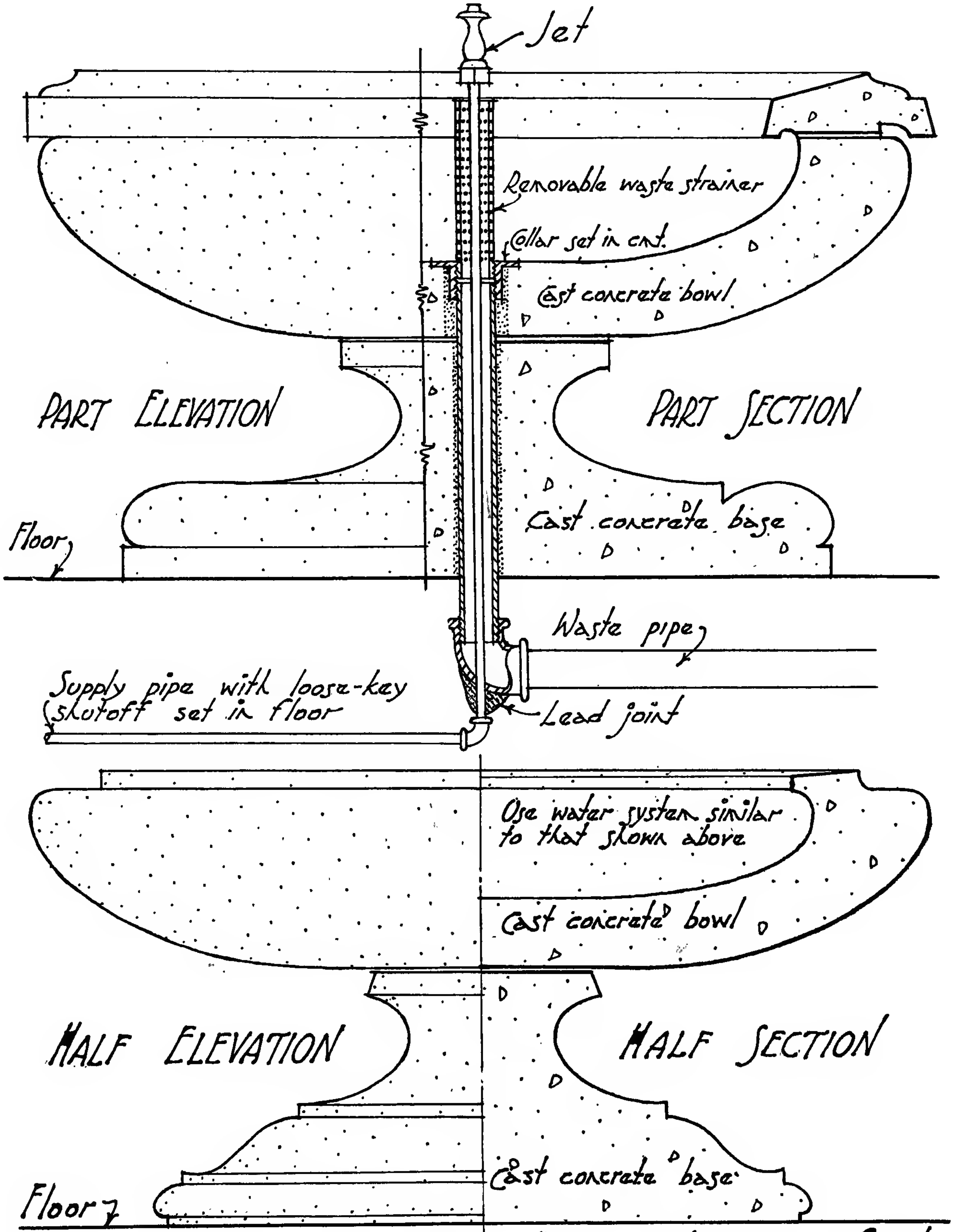


· PART SECTION · POT LID RACK · PART ELEVATION ·

· THE DETAILS ARE 3-INCH SCALE ·

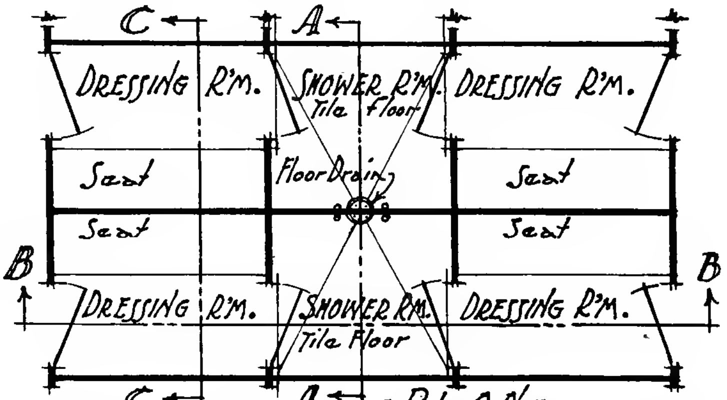
A KITCHEN CABINET

· THE ELEVATION & SECTIONS ARE 3/8" SCALE ·

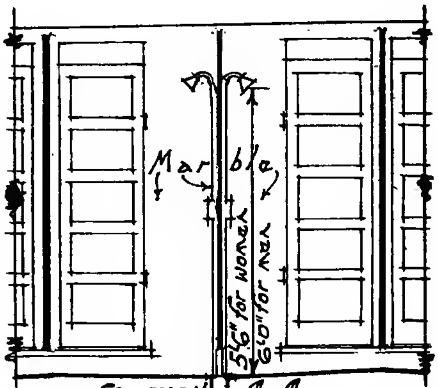


The scale is three inches to one foot

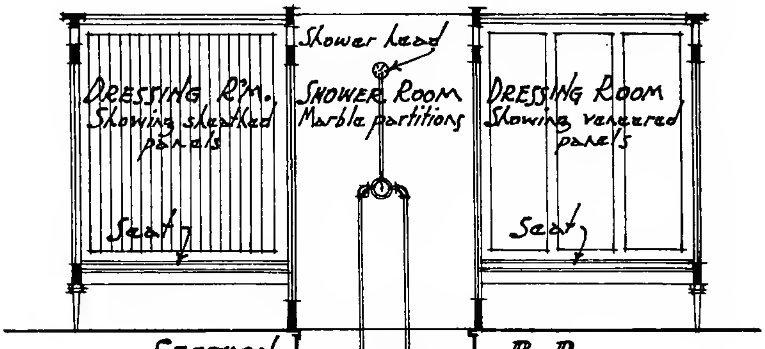
BOWLS FOR PORCH FOUNTAINS



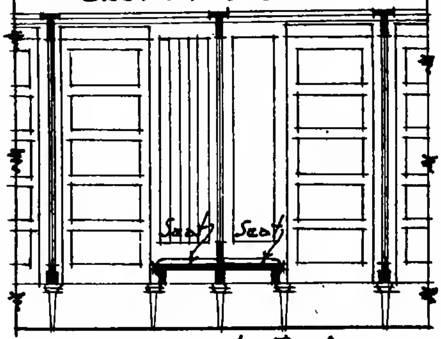
· PLAN ·



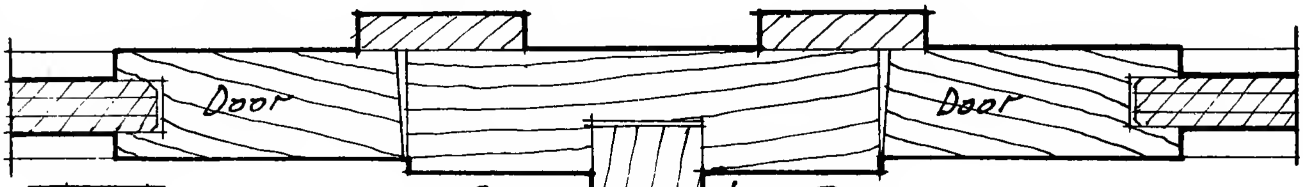
SECTION A-A



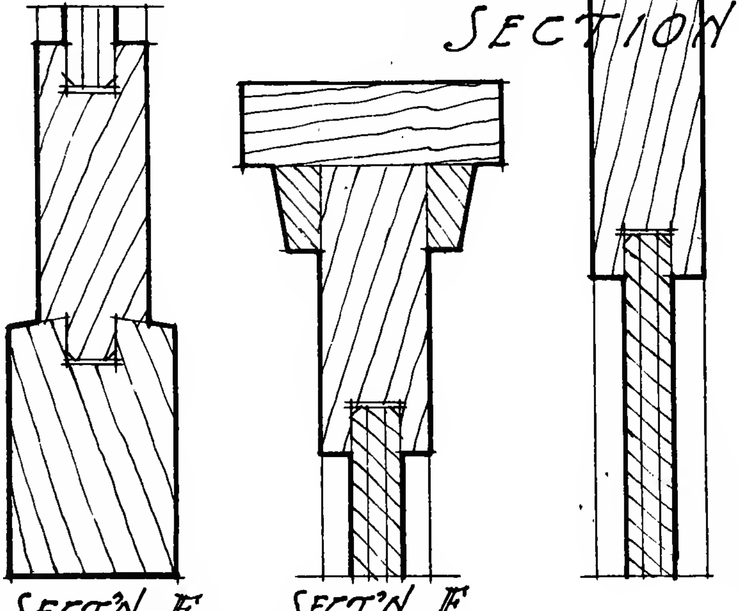
SECTION B-B



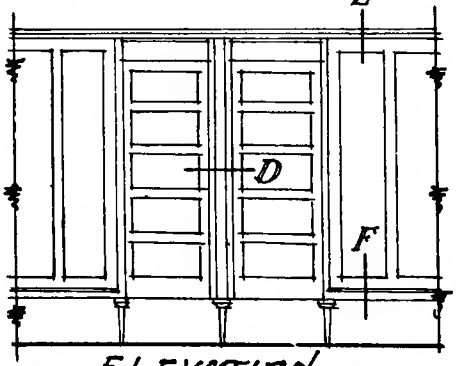
SECTION C-C



SECTION D



SECT'N. F SECT'N. E

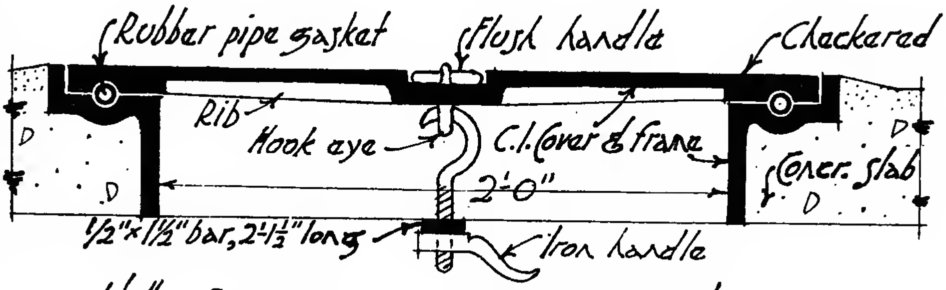


ELEVATION

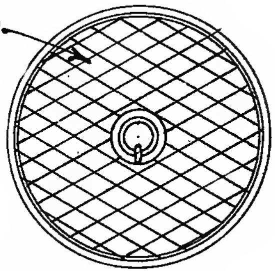
The plan, elevation & sections A, B & C are 1/4-inch scale. Sections D, E & F are half size. N.B. In this arrangement each shower serves two dressing rooms; thus one person may use the extra dressing room while another person is bathing.

DUPLEX SHOWER STALLS FOR A COUNTRY CLUB-HOUSE

PATTON, ROBERTS, DRUMMOND & WHITE, ASSOCIATED ARCH'TS.

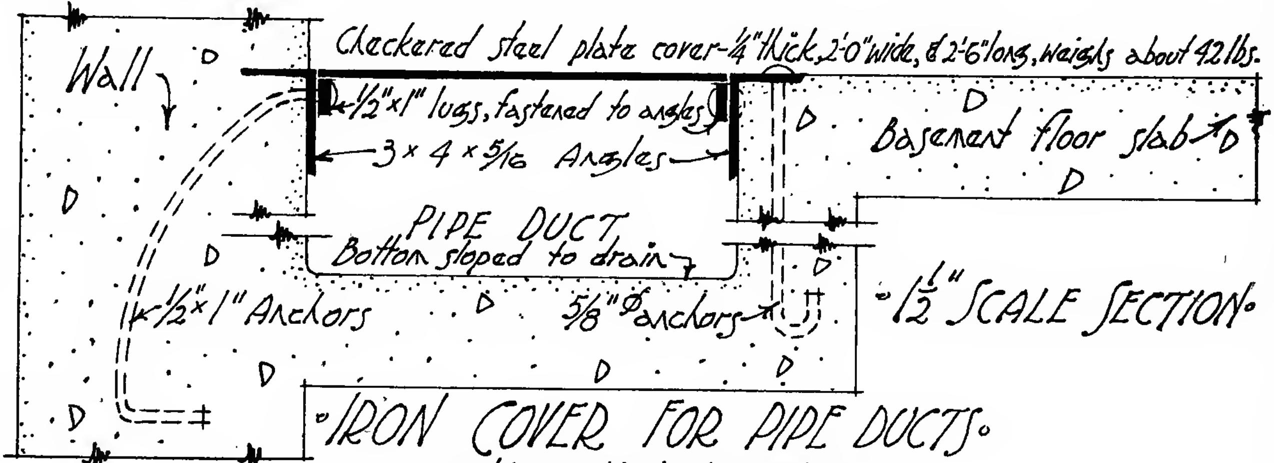


• 1½" SCALE SECTION •



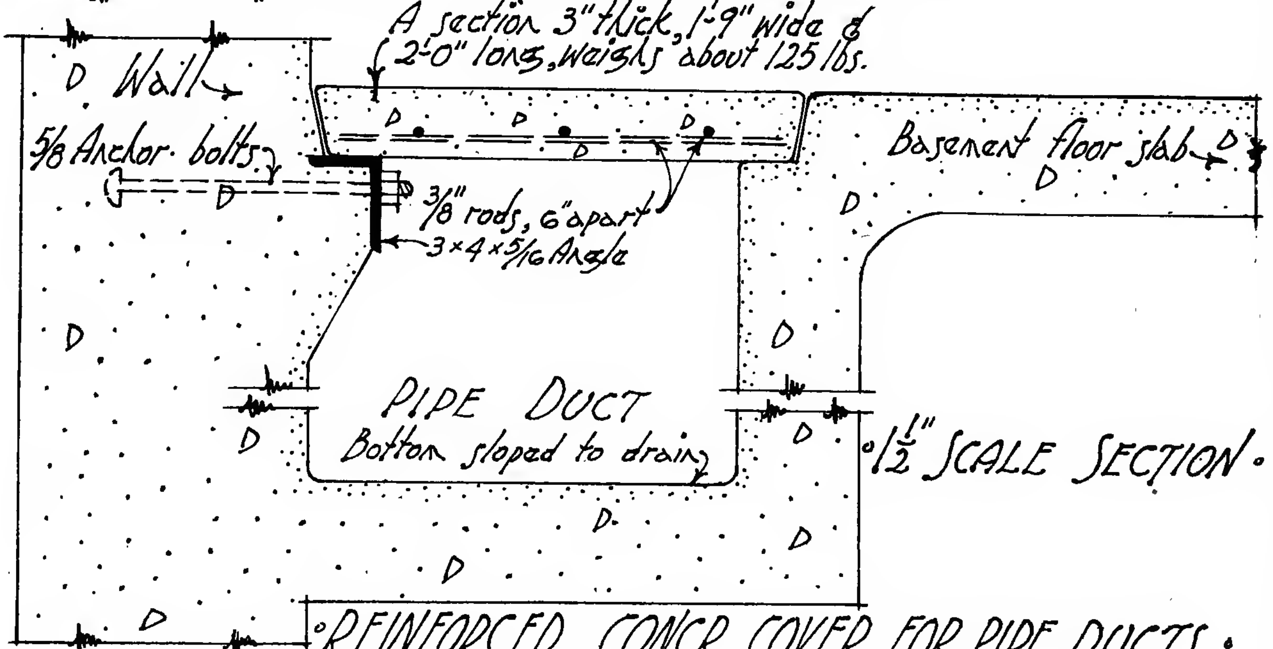
• ½" SCALE PLAN •

WEATHER & THIEF PROOF COAL HOLE COVER – M.J. Sullivan, Arch't.


Wall
Checkered steel plate cover-¼" thick, 2'-0" wide, & 2'-6" long, weighs about 42 lbs.
½"×1" lugs, fastened to angles
3 × 4 × 5/16 Angles
Basement floor slab
PIPE DUCT
Bottom sloped to drain
½"×1" Anchors
5/8" Ø anchors

• 1½" SCALE SECTION •

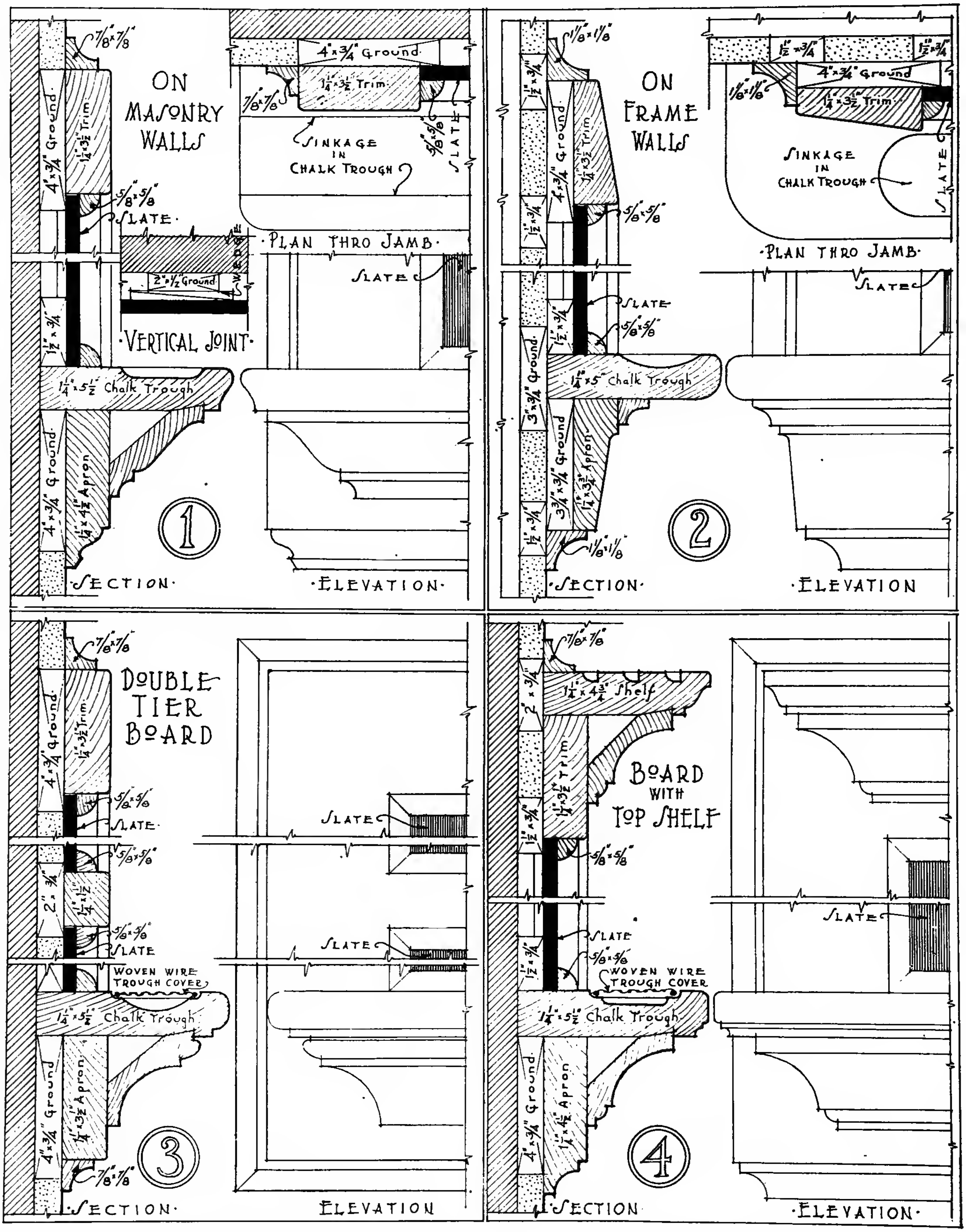
• IRON COVER FOR PIPE DUCTS •



• 1½" SCALE SECTION •

• REINFORCED CONCR. COVER FOR PIPE DUCTS •

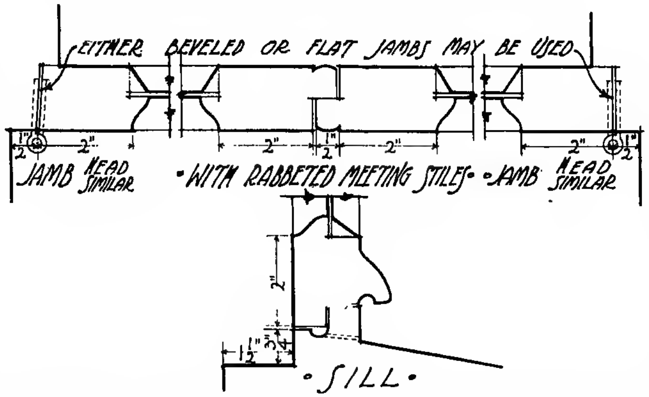
• COAL HOLE & PIPE DUCT COVERS •



BLACKBOARD INSTALLATION AS RECOMMENDED BY THE STRUCTURAL SERVICE BUREAU

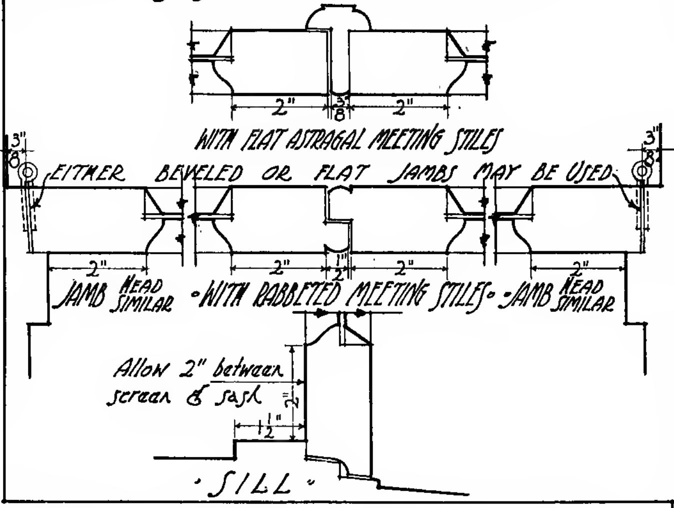
CASEMENTS OPENING IN

USING RIM OR MORTISE CASEMENT FASTENER OR TURNBUCKLE & ADJUSTER FOR SASH NOT OVER 4'-0" HIGH

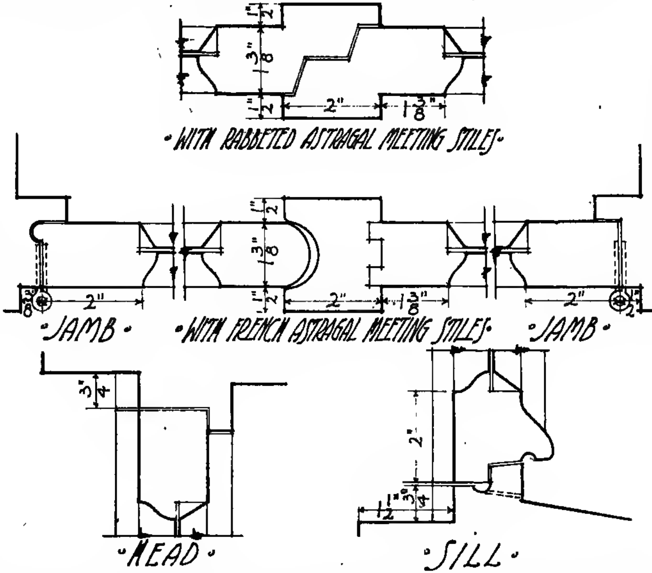

EITHER BEVELED OR FLAT JAMBS MAY BE USED
2"
2"
1/2"
2"
2"
1/2"
JAMB HEAD SIMILAR
• WITH RABBETED MEETING STILES •
• JAMB HEAD SIMILAR
2"
1 1/2"
3/4"
• SILL •

CASEMENTS OPENING OUT

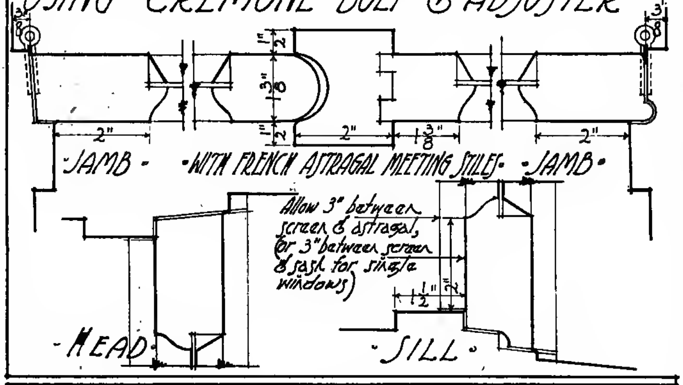
USING RIM OR MORTISE CASEMENT FASTENER OR TURNBUCKLE & ADJUSTER FOR SASH NOT OVER 4'-0" HIGH


2"
3/8
2"
WITH FLAT ASTRAGAL MEETING STILES
3/8"
EITHER BEVELED OR FLAT JAMBS MAY BE USED
3/8"
2"
2"
1/2"
2"
2"
JAMB HEAD SIMILAR
• WITH RABBETED MEETING STILES •
• JAMB HEAD SIMILAR
Allow 2" between screen & sash
2"
1 1/2"
• SILL •

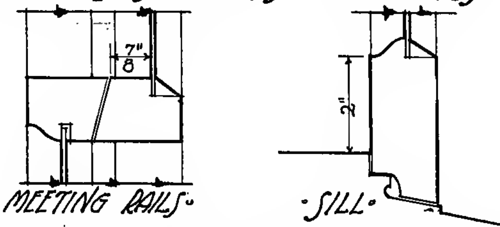
USING CREMONE BOLT & ADJUSTER



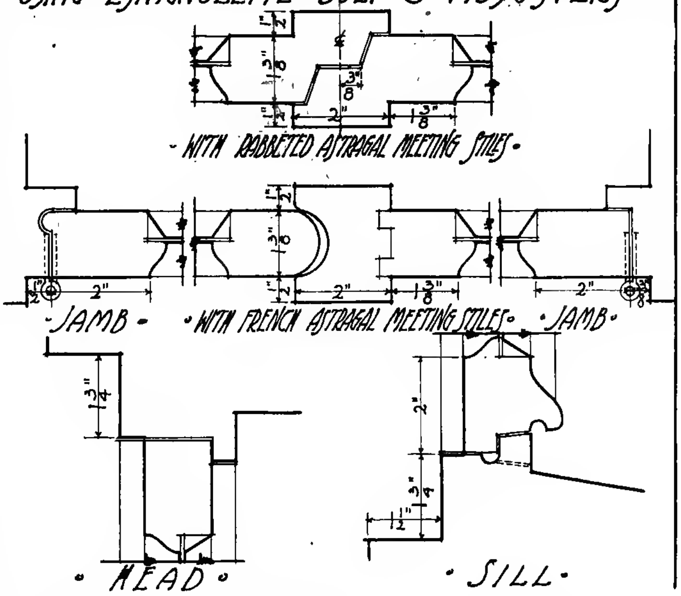
• USING CREMONE BOLT & ADJUSTER •


3/8"
1/2"
1 3/8"
1/2"
3/8"
2"
2"
1 3/8"
2"
• JAMB •
• WITH FRENCH ASTRAGAL MEETING STILES •
• JAMB •
Allow 3" between screen & astragal, (or 3" between screen & sash for single windows)
1 1/2"
2"
• HEAD •
• SILL •

• DOUBLE-HUNG SASH • USING SASH LIFTS & LOCKS •



• USING ESPAGNOLETTE BOLT & ADJUSTERS •



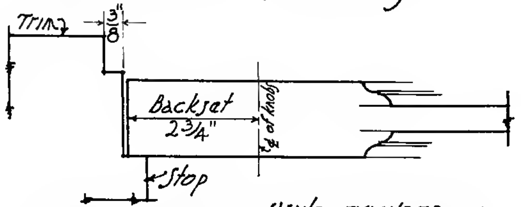
N.B. ALL SECTIONS ARE 3-INCH SCALE. MEASUREMENTS GIVEN ARE MINIMUM FOR STANDARD HARDWARE: THE SECTIONS SHOW DOUBLE CASEMENTS, BUT THE REQUIREMENTS FOR SINGLE CASEMENTS ARE EXACTLY SIMILAR, OMITTING MEETING STILES. EITHER FLAT OR BEVELED JAMBS (WITH OR WITHOUT TONGUE ON HINGE SIDE) MAY BE USED.

WINDOWS FOR STANDARD HARDWARE

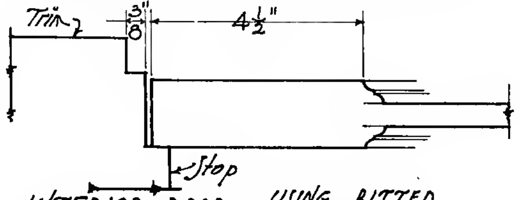
AS RECOMMENDED BY TWELVE LEADING HARDWARE MANUFACTURERS •

SINGLE DOORS

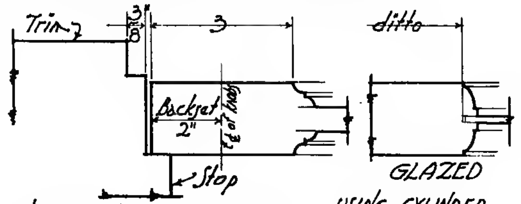
WITH FLAT FRONTS



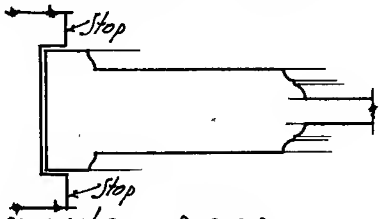
EXTERIOR DOOR USING CYLINDER OR BITTED KEY LOCK



INTERIOR DOOR USING BITTED KEY LOCK

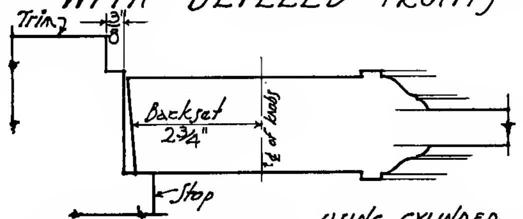


NARROW STILE DOOR USING CYLINDER LOCK

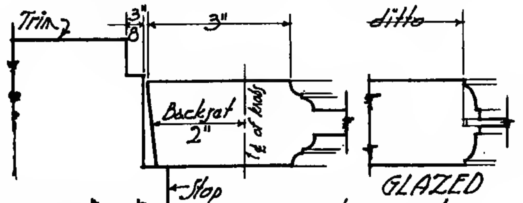


SLIDING DOOR

WITH BEVELED FRONTS



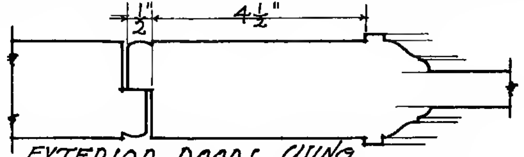
EXTERIOR DOOR USING CYLINDER LOCK



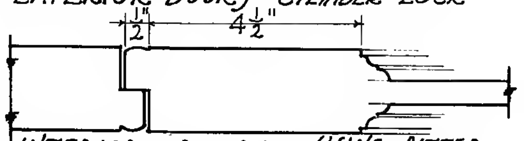
NARROW STILE DOORS USING CYLINDER LOCKS

DOUBLE DOORS

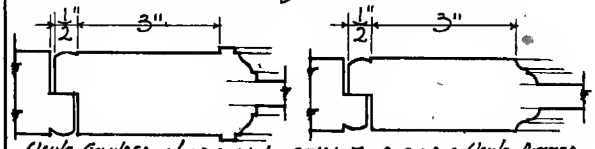
WITH RABBETED MEETING STILES



EXTERIOR DOORS USING CYLINDER LOCK

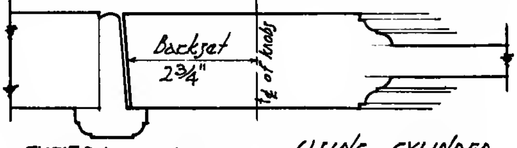


INTERIOR DOORS USING BITTED KEY LOCK

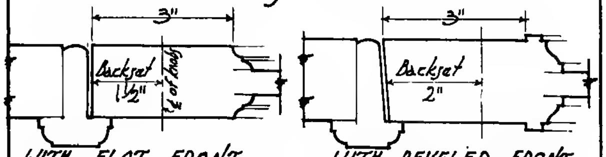


USING CYLINDER LOCK NARROW STILE DOORS USING BITTED KEY LOCK

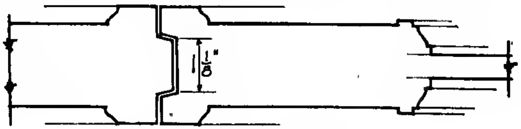
•WITH FLAT ASTRAGAL MEETING STILES•



EXTERIOR DOORS USING CYLINDER LOCK

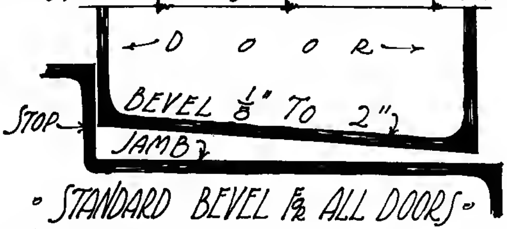


WITH FLAT FRONT USING BITTED KEY LOCK NARROW STILE DOORS WITH BEVELED FRONT USING CYLINDER LOCK

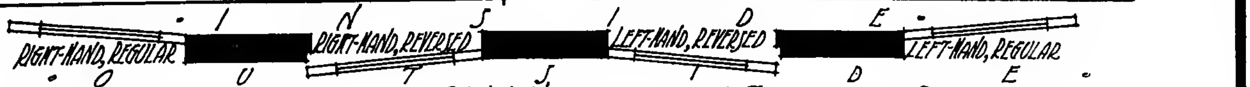


SLIDING DOORS

N.B. MEASUREMENTS GIVEN ARE MINIMUM FOR STANDARD HARDWARE, BUT OTHER BACKSETS, & LOCKS FOR THICKER DOORS WITH BEVELED FRONTS, MAY BE HAD ON SPECIAL ORDER AT AN ADDITIONAL PRICE



• STANDARD BEVEL FOR ALL DOORS •

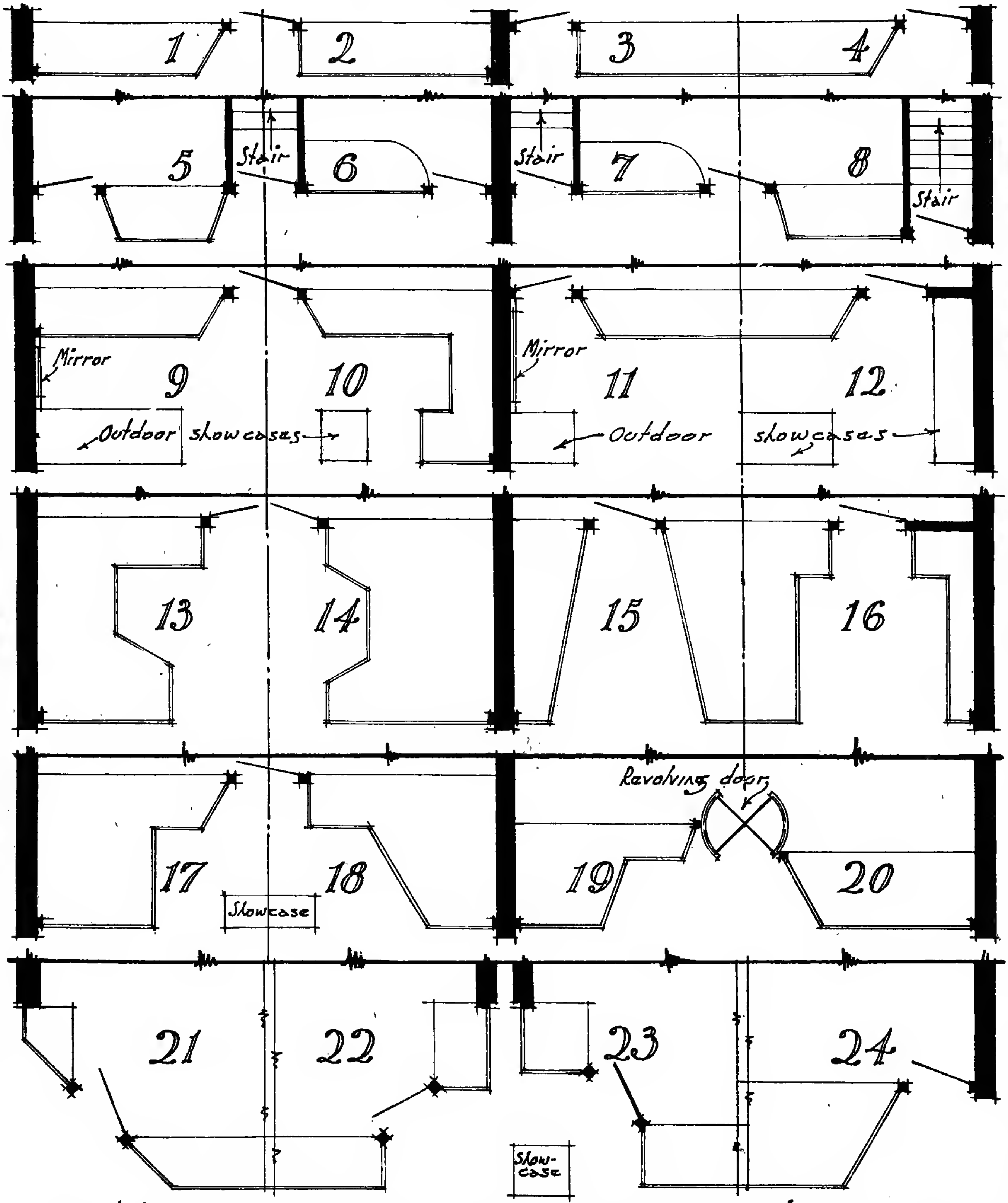


HAND OR SWING OF DOORS

THE SECTIONS ARE 3-INCH SCALE

DOORS FOR STANDARD HARDWARE

AS RECOMMENDED BY TWELVE LEADING HARDWARE MANUFACTURERS



Figs. 1 to 18 show popular types of fronts. Figs. 19 & 20 show applications of revolving doors. Figs. 21 to 24 show various treatments for corner stores.

DIAGRAMS OF VARIOUS PLANS FOR STORE FRONTS

STRVCTVRAL STEEL- WHEN ERECTED- FREQVENTLY VARIES FROM EXACT FIGVRED DIMENSIONS-- --FOR THIS REASON ALL SVPPORTS FOR TERRA COTTA- INCLVDING ANGLES- RODS- ANCHORS- ETC-- SHOVLD BE DESIGNED SO AS TO PERMIT OF EASY ADJVSTMENT TO THE REASONABLE REQVIREMENTS OF CONSTRVCTION WHEN THE MATERIAL IS BEING SET--

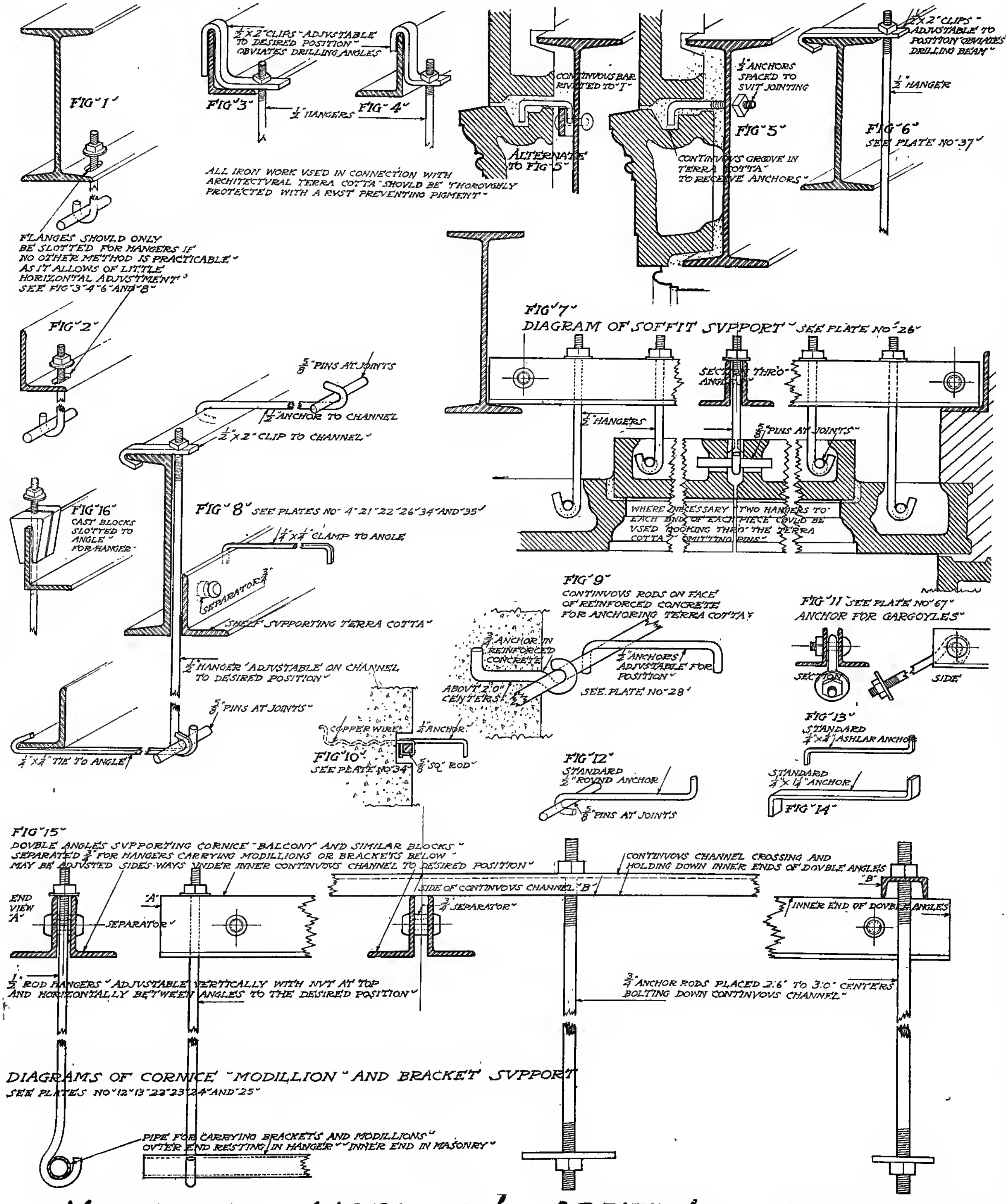
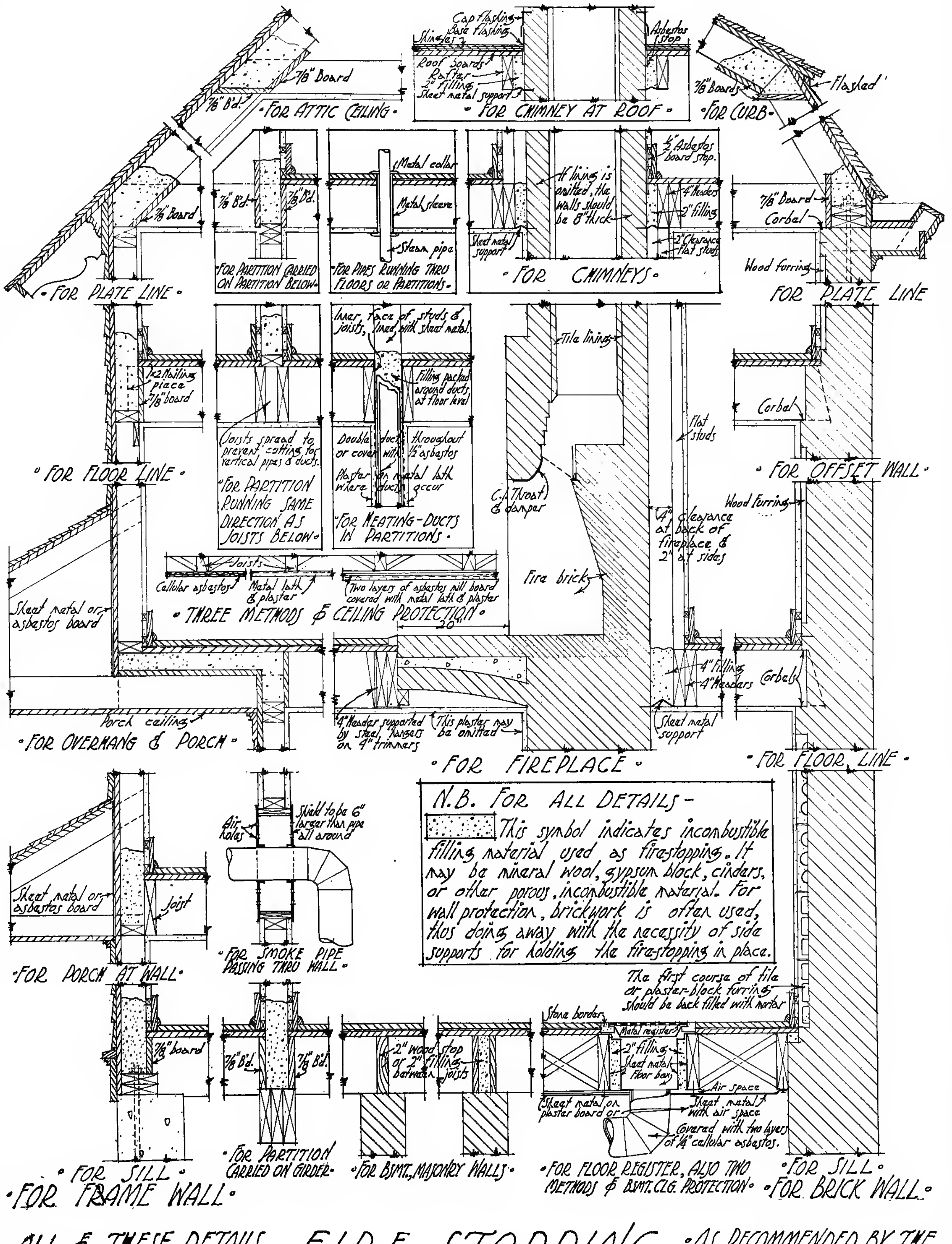


FIG-1-
FLANGES SHOVLD ONLY BE SLOTTED FOR HANGERS IF NO OTHER METHOD IS PRACTICABLE- AS IT ALLOWS OF LITTLE HORIZONTAL ADJVSTMENT- SEE FIG-3-4-6-AND-8-
½"X2" CLIPS- ADJVSTABLE TO DESIRED POSITION- OBVIATES DRILLING ANGLES
FIG-3-
½" HANGERS
FIG-4-
ALL IRON WORK VSED IN CONNECTION WITH ARCHITECTVRAL TERRA COTTA- SHOVLD BE THOROVGHLY PROTECTED WITH A RVST PREVENTING PIGMENT-
CONTINVOVS BAR RIVETED TO-I-
ALTERNATE TO FIG-5-
½" ANCHORS SPACED TO SVIT JOINTING
FIG-5-
CONTINVOVS GROOVE IN TERRA COTTA- TO RECEIVE ANCHORS-
½"X2" CLIPS- ADJVSTABLE TO POSITION- OBVIATES DRILLING BEAM-
½" HANGER
FIG-6-
SEE PLATE NO-37-
FIG-2-
⅝" PINS AT JOINTS
½" ANCHOR TO CHANNEL
½"X2" CLIP TO CHANNEL-
FIG-16-
CAST BLOCKS SLOTTED TO ANGLE- FOR HANGER-
FIG-8- SEE PLATES NO- 4-21-22-26-34-AND-35-
¼"X¼" CLAMP TO ANGLE
SEPARATOR ¾"
SHELF SVPPORTING TERRA COTTA-
½" HANGER- ADJVSTABLE ON CHANNEL TO DESIRED POSITION-
⅝" PINS AT JOINTS-
¼"X¼" TIE TO ANGLE
FIG-7-
DIAGRAM OF SOFFIT SVPPORT- SEE PLATE NO-26-
SECTION THRO- ANGLE-
½" HANGERS
⅝" PINS AT JOINTS-
WHERE NECESSARY- TWO HANGERS TO- EACH END OF EACH PIECE COVLD BE VSED HOOKING THRO- THE TERRA COTTA- OMITTING PINS-
FIG-9-
CONTINVOVS RODS ON FACE OF REINFORCED CONCRETE FOR ANCHORING TERRA COTTA-
¾" ANCHOR IN REINFORCED CONCRETE
½" ANCHORS ADJVSTABLE FOR POSITION-
ABOVT 2'0" CENTERS
SEE PLATE NO-28-
FIG-11- SEE PLATE NO-67-
ANCHOR FOR GARGOYLES-
SECTION
SIDE
COPPER WIRE
¼" ANCHOR
FIG-10-
SEE PLATE NO-34-
⅝" SQ- ROD-
FIG-12-
STANDARD ½" ROVND ANCHOR
⅝" PINS AT JOINTS
FIG-13-
STANDARD ¼"X¼" ASHLAR ANCHOR
STANDARD ¼"X1¼" ANCHOR
FIG-14-
FIG-15-
DOVBLE ANGLES SVPPORTING CORNICE- BALCONY AND SIMILAR BLOCKS- SEPARATED ¾" FOR HANGERS CARRYING MODILLIONS OR BRACKETS BELOW- MAY BE ADJVSTED SIDES-WAYS VNDER INNER CONTINVOVS CHANNEL TO DESIRED POSITION-
END VIEW -A-
-A-
SEPARATOR-
SIDE OF CONTINVOVS CHANNEL -B-
¾" SEPARATOR-
CONTINVOVS CHANNEL CROSSING AND HOLDING DOWN INNER ENDS OF DOVBLE ANGLES
-B-
INNER END OF DOVBLE ANGLES
½" ROD HANGERS- ADJVSTABLE VERTICALLY WITH NVT AT TOP AND HORIZONTALLY BETWEEN ANGLES TO THE DESIRED POSITION-
¾" ANCHOR RODS PLACED 2'6" TO 3'0" CENTERS BOLTING DOWN CONTINVOVS CHANNEL-
DIAGRAMS OF CORNICE- MODILLION- AND BRACKET SVPPORT
SEE PLATES NO-12-13-22-23-24-AND-25-
PIPE FOR CARRYING BRACKETS AND MODILLIONS- OVTER END RESTING IN HANGER-- INNER END IN MASONRY-

METHODS USED IN SETTING TERRA COTTA

AS RECOMMENDED BY THE NATIONAL TERRA COTTA SOCIETY

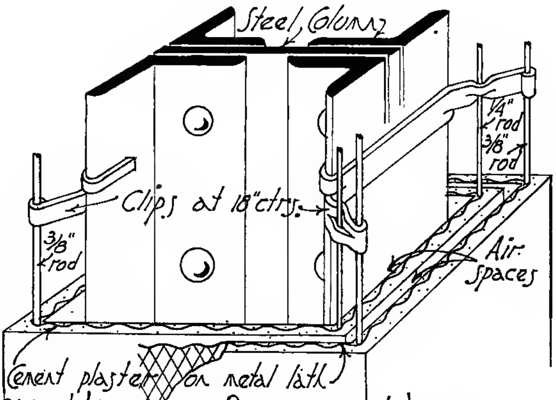


Cap flashing
Base flashing
Shingles
Asbestos stop
Roof boards
Rafter
2" filling
Sheet metal support
7/8" Board
7/8" Bd.
• FOR ATTIC CEILING •
• FOR CHIMNEY AT ROOF •
7/8" Boards
Flashed
• FOR CURB •
7/8" Board
7/8" Bd.
7/8" Bd.
Metal collar
Metal sleeve
Steam pipe
If lining is omitted, the walls should be 8" thick
1/2 Asbestos board stop.
4" Headers
2" filling
2" Clearance
Flat studs
Sheet metal support
7/8" Board
Corbel
Wood furring
• FOR PLATE LINE •
• FOR PARTITION CARRIED ON PARTITION BELOW •
• FOR PIPES RUNNING THRU FLOORS OR PARTITIONS •
• FOR CHIMNEYS •
FOR PLATE LINE
Inner face of studs & joists, lined with sheet metal.
Tile lining
1x2 Nailing piece
7/8" board
Filling packed around ducts at floor level
Corbel
Joists spread to prevent cutting for vertical pipes & ducts.
Double ducts throughout or cover with 1/2" asbestos
Plaster on metal lath where ducts occur
Flat studs
• FOR FLOOR LINE •
• FOR PARTITION RUNNING SAME DIRECTION AS JOISTS BELOW •
• FOR HEATING-DUCTS IN PARTITIONS •
C.I. Throat & damper
4" clearance at back of fireplace & 2" at sides
• FOR OFFSET WALL •
Wood furring
Joists
Cellular asbestos
Metal lath & plaster
Two layers of asbestos mill board covered with metal lath & plaster
Fire brick
Sheet metal or asbestos board
• THREE METHODS OF CEILING PROTECTION •
20"
4" filling
4" Headers
Corbels
Porch ceiling
4" Header supported by steel hangers on 4" trimmers
This plaster may be omitted
Sheet metal support
• FOR OVERHANG & PORCH •
• FOR FIREPLACE •
• FOR FLOOR LINE •
Air holes
Shield to be 6" larger than pipe all around
Sheet metal or asbestos board
Joist
• FOR PORCH AT WALL •
• FOR SMOKE PIPE PASSING THRU WALL •
The first course of tile or plaster-block furring should be back filled with mortar
Stone border
Metal register
7/8" board
7/8" Bd.
7/8" Bd.
2" wood stop or 2" filling between joists
2" filling
Sheet metal floor box
Air space
Sheet metal or plaster board or
Sheet metal with air space
Covered with two layers of 1/4" cellular asbestos.
• FOR SILL •
• FOR FRAME WALL •
• FOR PARTITION CARRIED ON GIRDER •
• FOR BSMT. MASONRY WALLS •
• FOR FLOOR REGISTER, ALSO TWO METHODS OF BSMT. CLG. PROTECTION •
• FOR SILL •
• FOR BRICK WALL •

N.B. FOR ALL DETAILS –

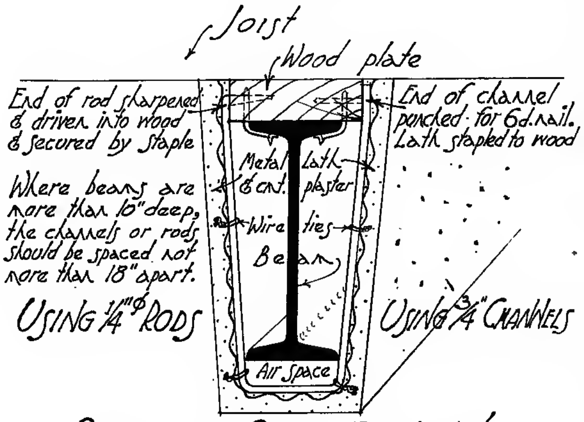
▨ This symbol indicates incombustible filling material used as fire-stopping. It may be mineral wool, gypsum block, cinders, or other porous, incombustible material. For wall protection, brickwork is often used, thus doing away with the necessity of side supports for holding the fire-stopping in place.

ALL OF THESE DETAILS ARE 1/2 INCH SCALE • FIRE-STOPPING • AS RECOMMENDED BY THE NAT'L. BOARD OF FIRE UNDERWRITERS •



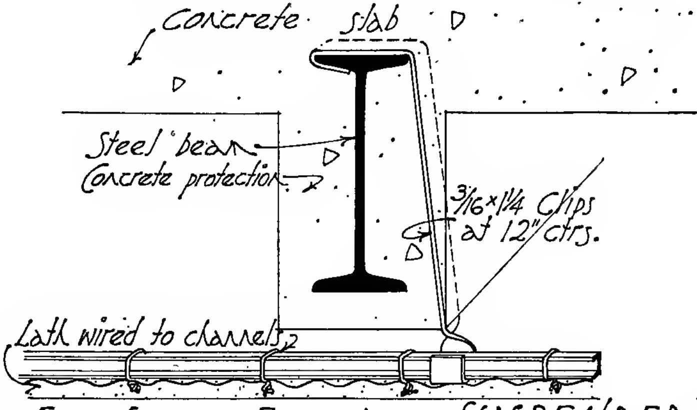
·SINGLE WALL· ·DOUBLE WALL·

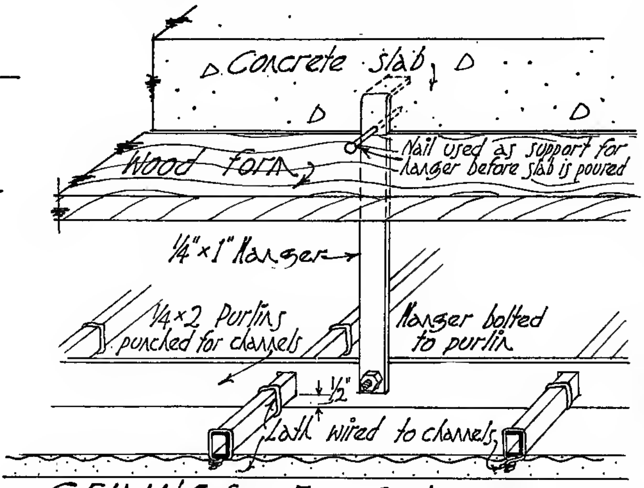
· STEEL COLUMN PROTECTION ·


Joist
Wood plate
End of rod sharpened & driven into wood & secured by Staple
End of channel punched for 6d. nail. Lath stapled to wood
Metal lath & cmt. plaster
Wire ties
Beam
Air Space
USING 1/4"φ RODS
USING 3/4" CHANNELS

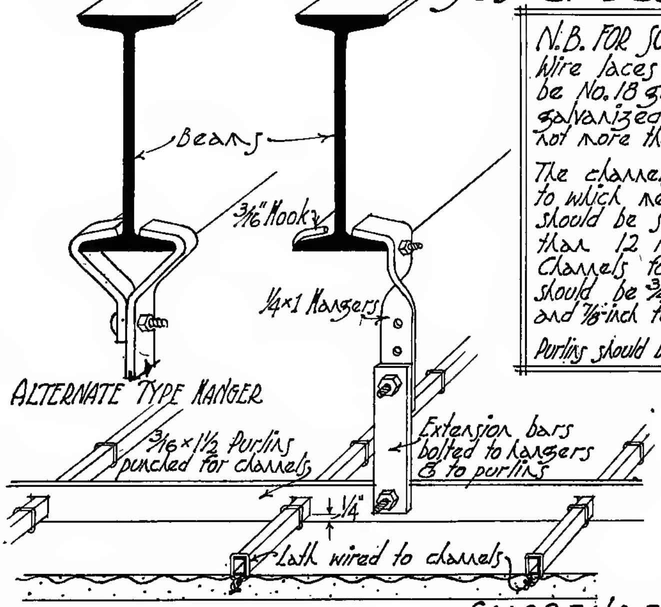
Where beams are more than 10" deep, the channels or rods should be spaced not more than 18" apart.

· BEAM · PROTECTION ·




Concrete slab
Nail used as support for hanger before slab is poured
Wood form
1/4"×1" Hanger
1/4×2 Purlins punched for channels
Hanger bolted to purlin
1/2"
Lath wired to channels

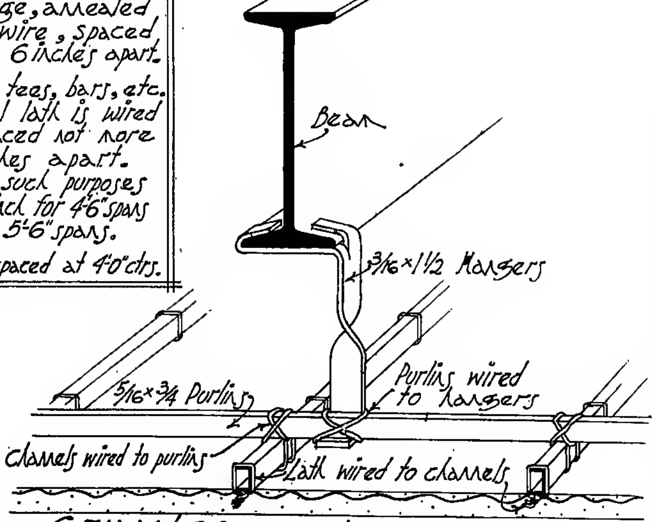
·FOR STEEL FRAMING ·SUSPENDED· CEILINGS· ·FOR CONCRETE SLAB·


Beams
3/16" Hook
1/4×1 Hangers
ALTERNATE TYPE HANGER
3/16×1 1/2 Purlins punched for channels
Extension bars bolted to hangers & to purlins
1/4"
Lath wired to channels

N.B. FOR SUSPENDED CEILINGS. Wire laces or ties should be No. 18 gauge, annealed galvanized wire, spaced not more than 6 inches apart.

The channels, tees, bars, etc. to which metal lath is wired should be spaced not more than 12 inches apart. Channels for such purposes should be 3/4-inch for 4'6" spans and 7/8-inch for 5'-6" spans.

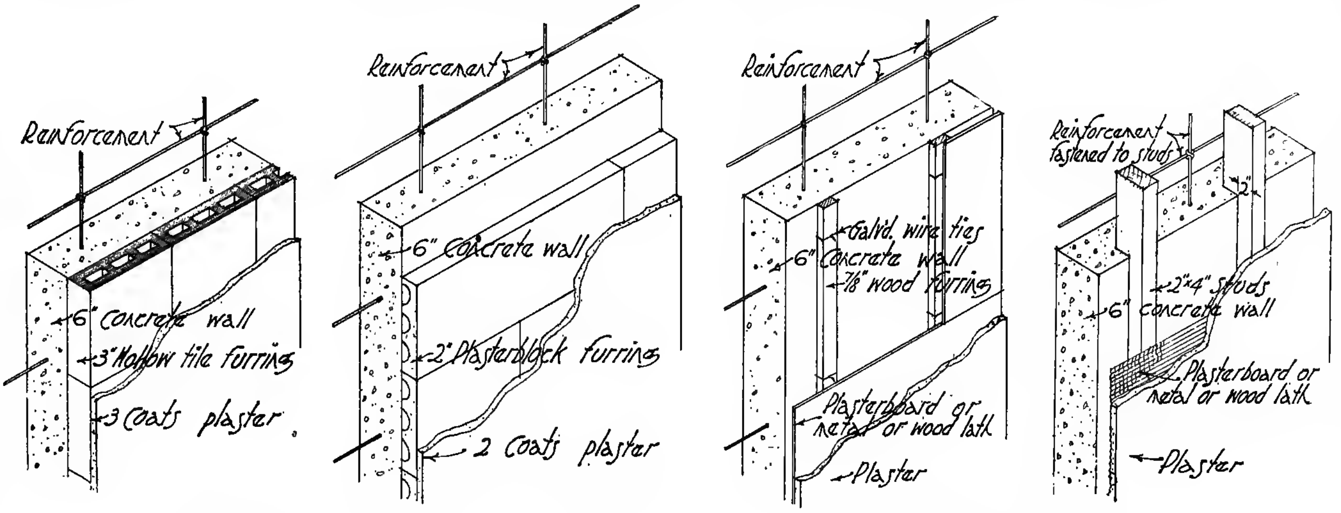
Purlins should be spaced at 4'0" ctrs.



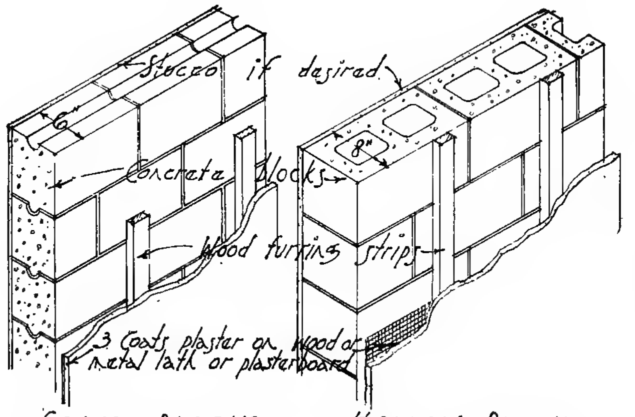
TWO-PIECE HANGER ·SUSPENDED CEILINGS· ONE-PIECE HANGER

·METAL · LATH · CONSTRUCTION·

·AS RECOMMENDED BY THE ASSOCIATED METAL LATH MANUFACTURERS·

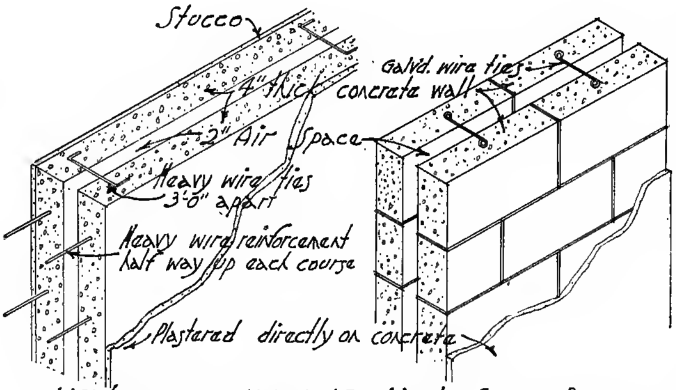


·MONOLITHIC TYPES OF CONSTRUCTION·



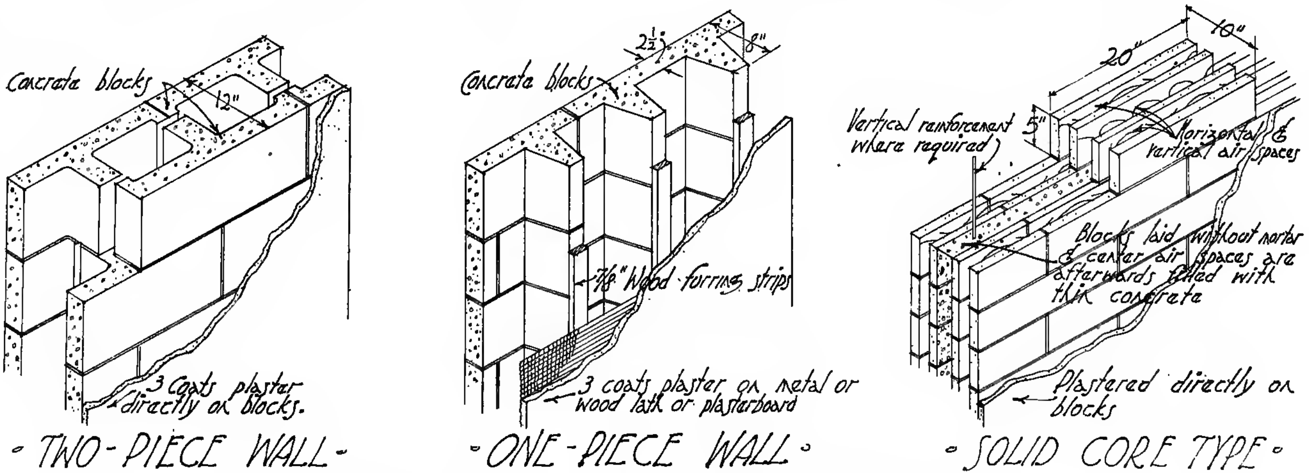
·SOLID BLOCKS· ·HOLLOW BLOCKS·

·SINGLE BLOCK TYPES·


Stucco
4" thick concrete wall
Galvd. wire ties
2" Air Space
Heavy wire ties 3'-0" apart
Heavy wire reinforcement half way up each course
Plastered directly on concrete

·USING WALL MACHINE· ·USING SOLID BLOCKS·

·DOUBLE WALL TYPES·

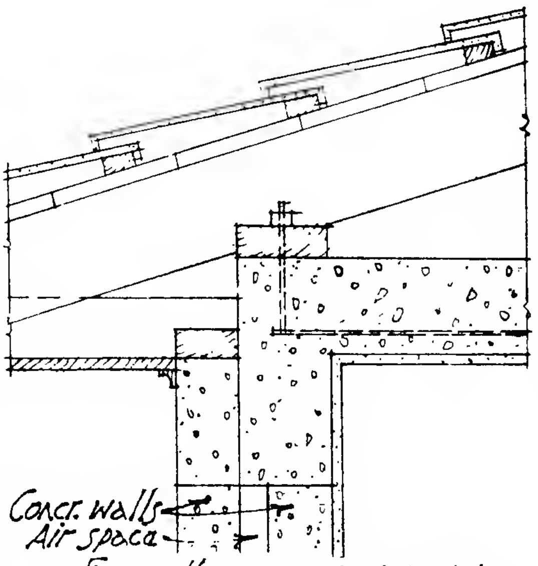

Concrete blocks
12"
3 Coats plaster directly on blocks.
Concrete blocks
2½"
8"
7/8" Wood furring strips
3 coats plaster on metal or wood lath or plasterboard
10"
20"
Vertical reinforcement where required
5"
Horizontal & vertical air spaces
Blocks laid without mortar & center air spaces are afterwards filled with thin concrete
Plastered directly on blocks

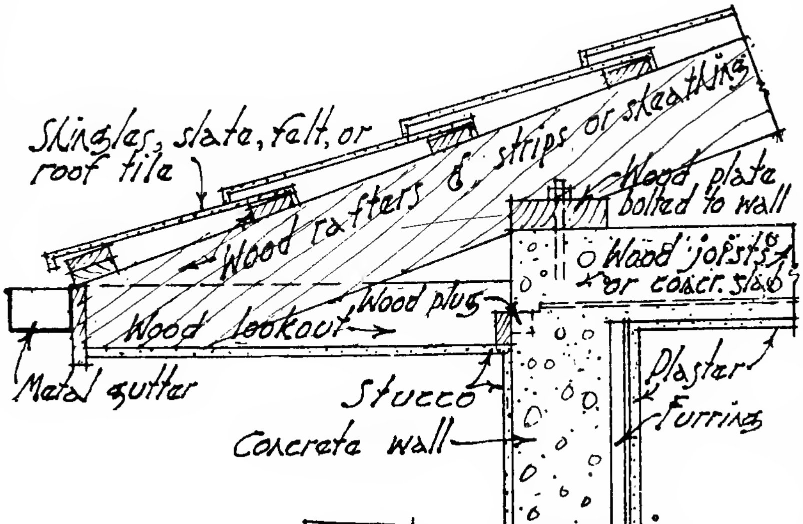
·TWO-PIECE WALL· ·ONE-PIECE WALL· ·SOLID CORE TYPE·

BLOCK CONSTRUCTION·

·CONCRETE WALL CONSTRUCTION·

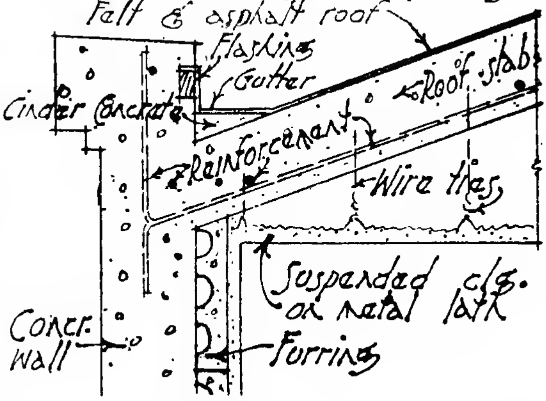
·APPROXIMATELY ½-INCH SCALE PERSPECTIVES·

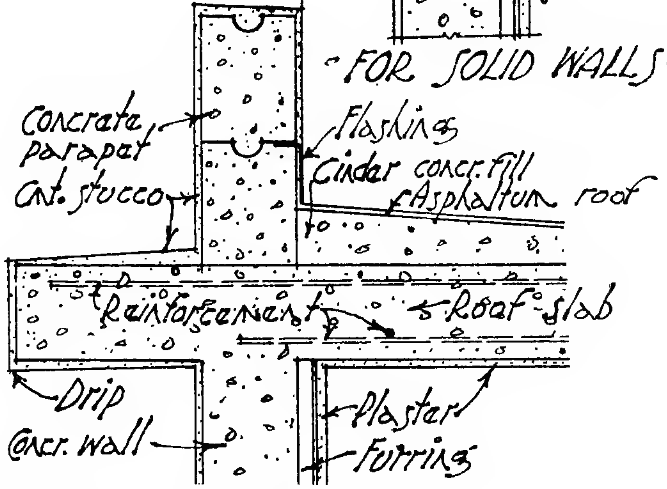



Shingles, slate, felt, or roof tile
Wood rafters & strips or sheathing
Wood plate bolted to wall
Wood joists or concr. slab
Wood plug
Wood lookout
Metal gutter
Stucco
Plaster
Furring
Concrete wall

• FOR HOLLOW WALLS •

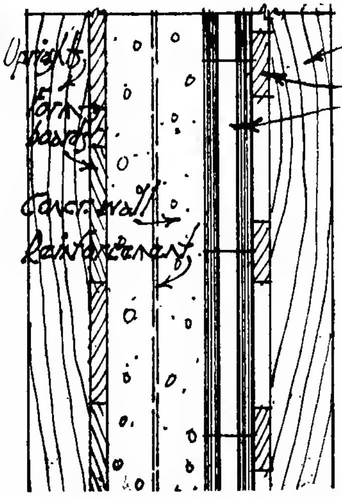
• FOR SOLID WALLS •

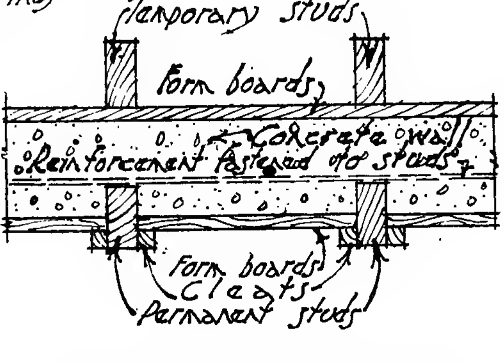


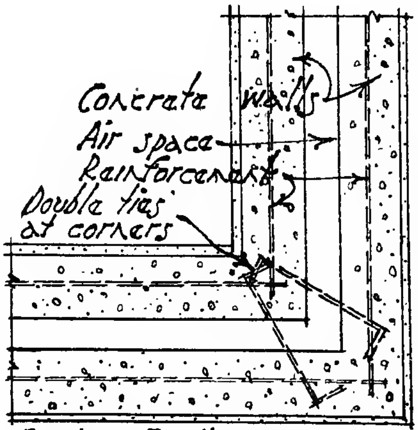


PITCHED - SLAB ROOFS - FLAT

• ROOF SECTIONS •







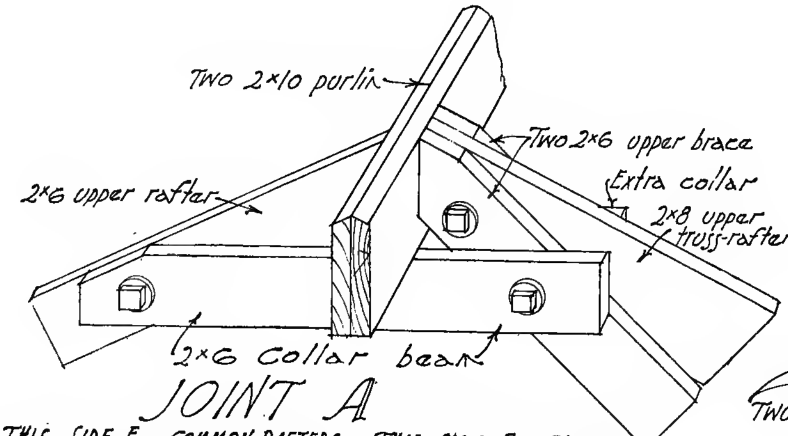
FORMWORK FOR TILE FURRING • • FORMWORK FOR STUD FURRING • • CORNER FOR HOLLOW WALLS •

• CONCRETE DETAILS •

• ONE - INCH SCALE •

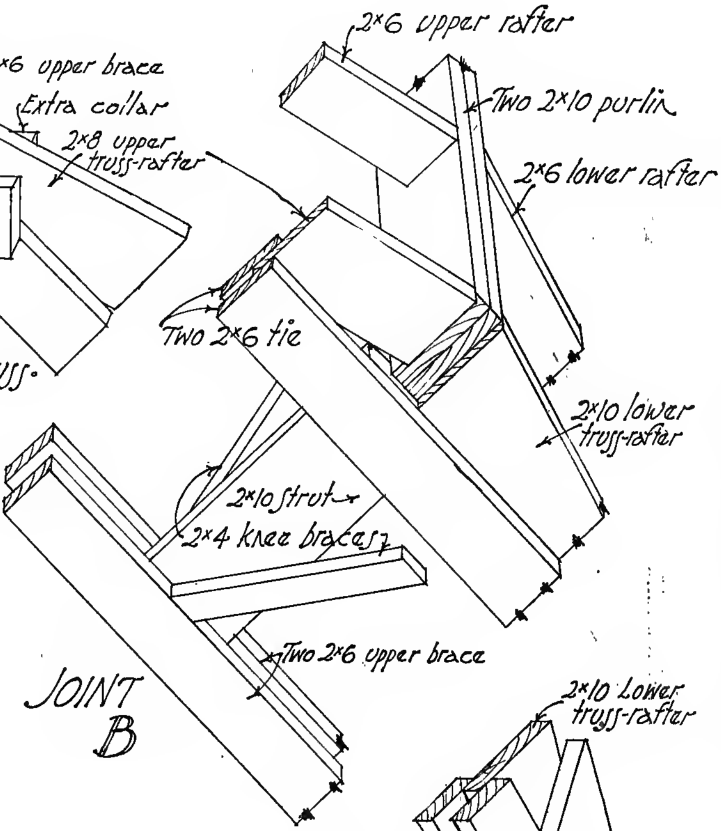
TRUSSED ROOF BARN DETAILS

THE SECTION IS $\frac{1}{8}$-INCH SCALE
THE DETAILS ARE APPROXIMATELY
3/4-INCH SCALE PERSPECTIVES.

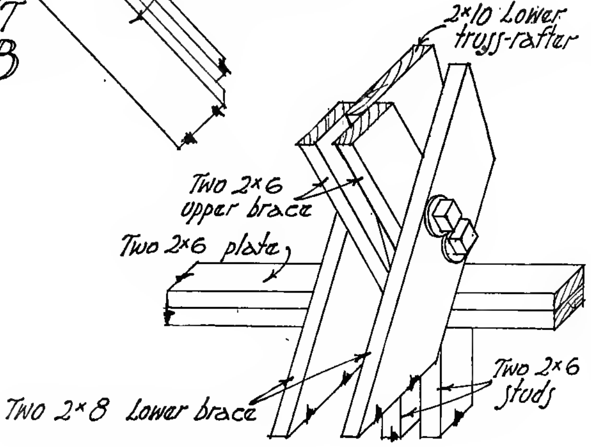


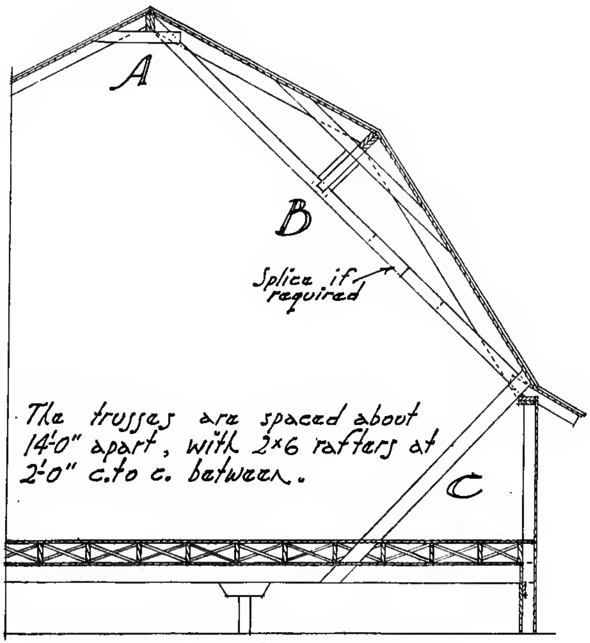
JOINT A

·THIS SIDE FOR COMMON RAFTERS· ·THIS SIDE FOR TRUSS·



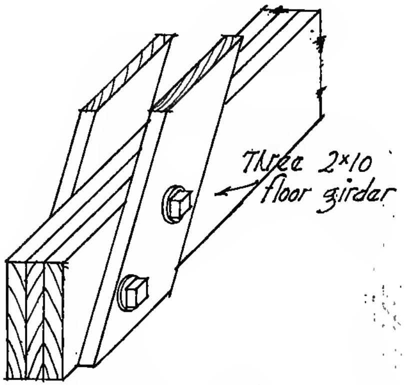
JOINT B





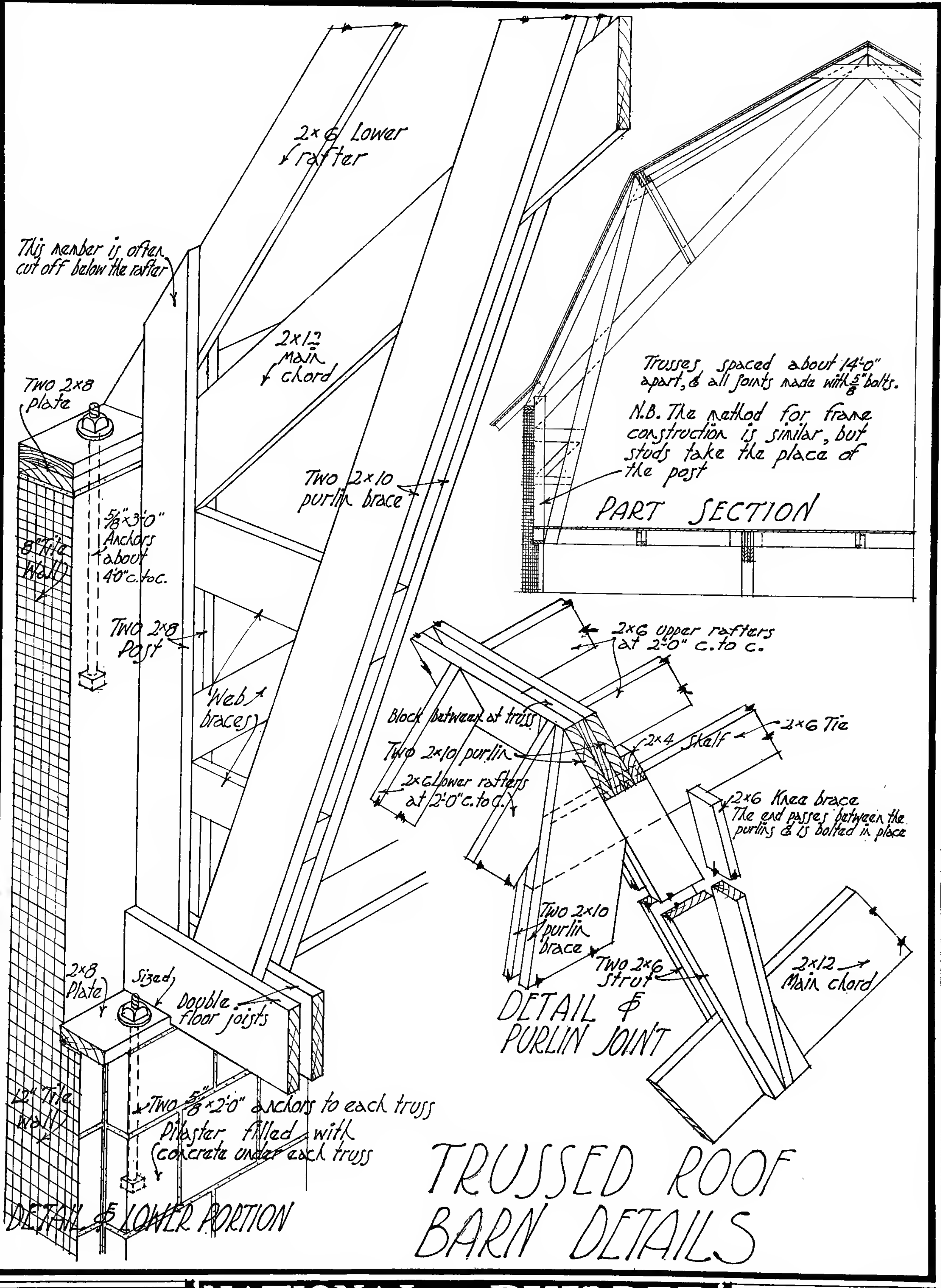
The trusses are spaced about 14'-0" apart, with 2×6 rafters at 2'-0" c. to c. between.

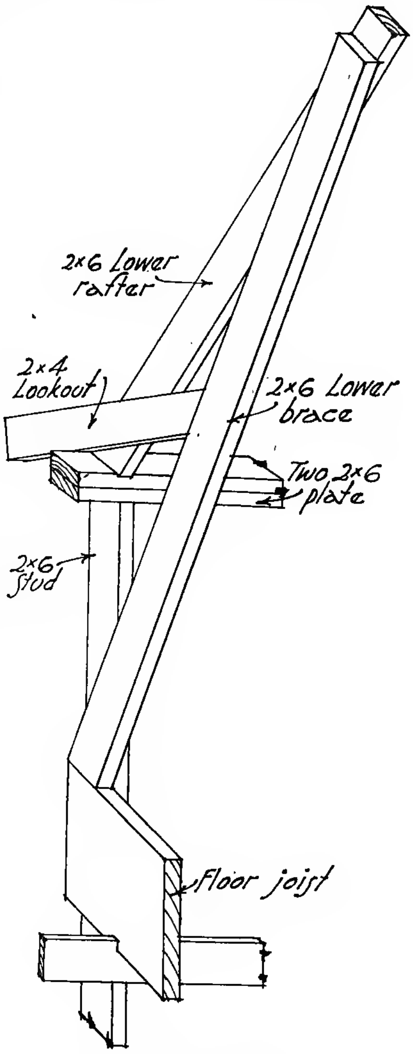
PART SECTION



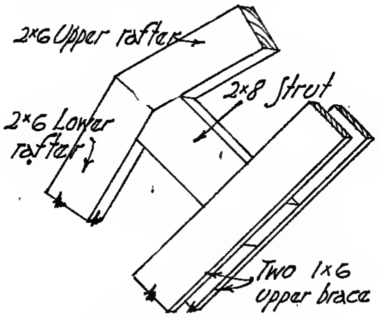
JOINT C

TRUSSED ROOF BARN DETAILS

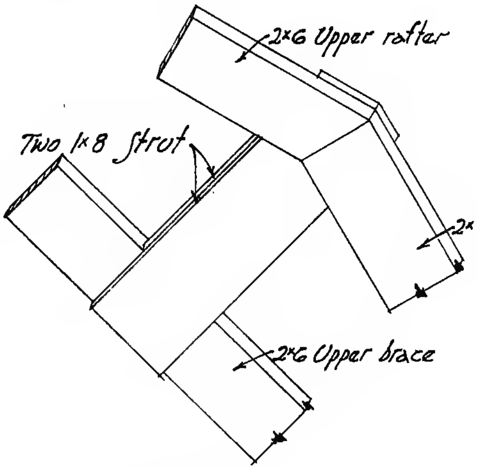

2×6 Lower rafter
This member is often cut off below the rafter
Two 2×8 plate
2×12 main chord
5/8"×3'-0" Anchors about 4'0" c. to c.
8" Tile Wall
Two 2×10 purlin brace
Two 2×8 Post
Web braces
2×8 Plate
Sized
Double floor joists
12" Tile wall
Two 5/8"×2'0" anchors to each truss
Pilaster filled with concrete under each truss
DETAIL OF LOWER PORTION
Trusses spaced about 14'-0" apart, & all joints made with 5/8" bolts.
N.B. The method for frame construction is similar, but studs take the place of the post
PART SECTION
2×6 upper rafters at 2'-0" c. to c.
Block between at truss
Two 2×10 purlin
2×4 Shelf
2×6 Tie
2×6 Lower rafters at 2'0" c. to c.
2×6 Knee brace The end passes between the purlins & is bolted in place
Two 2×10 purlin brace
Two 2×6 Strut
2×12 Main chord
DETAIL OF PURLIN JOINT



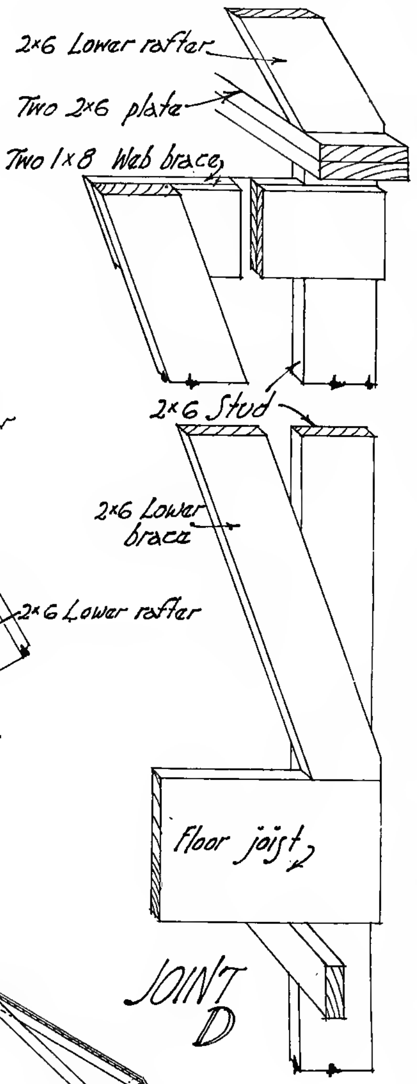
JOINT A



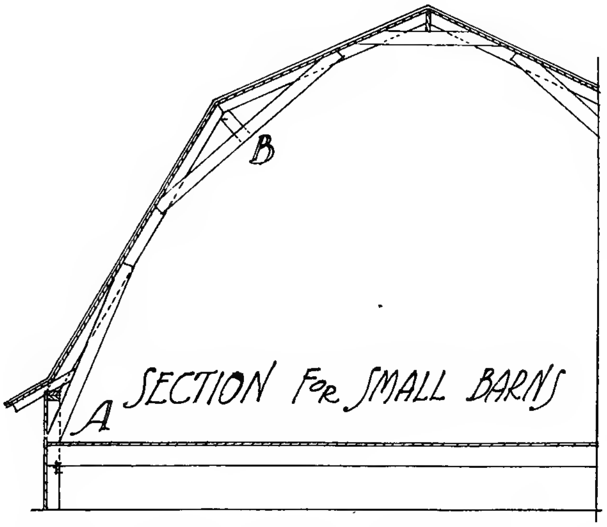
JOINT B



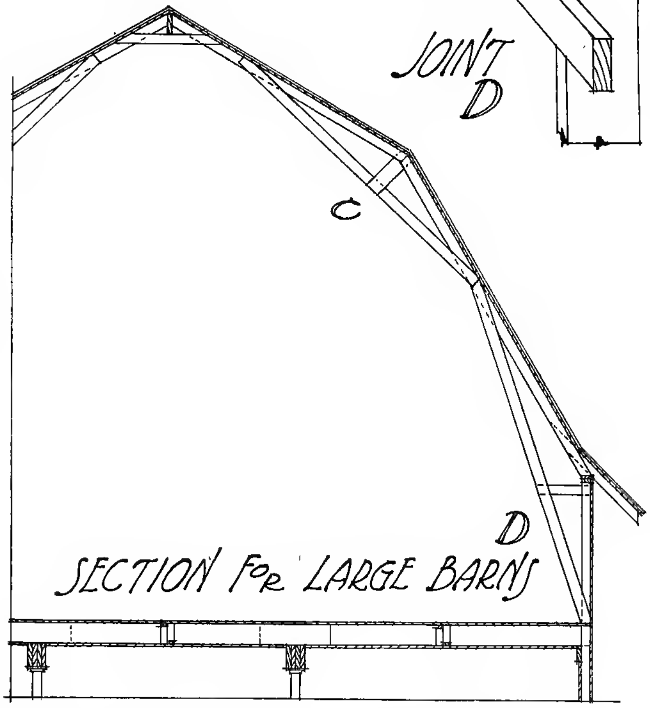
JOINT C



JOINT D



SECTION FOR SMALL BARNS

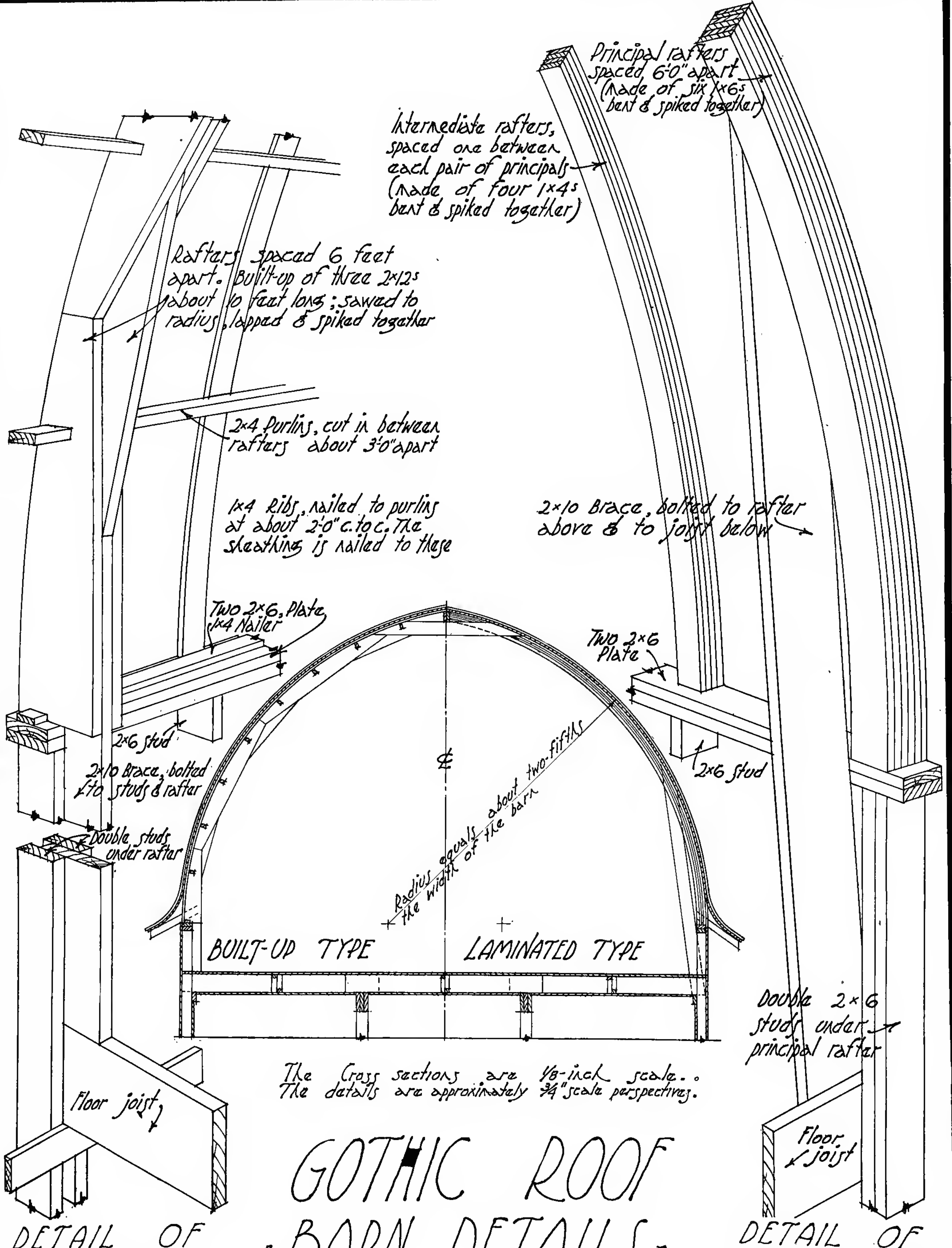


SECTION FOR LARGE BARNS

THE SECTIONS ARE 1/8 INCH SCALE. THE DETAILS ARE APPROXIMATELY 3/4" SCALE PERSPECTIVES

ROOF FRAMING – BARN DETAILS

IN THESE TYPES THE RAFTERS ARE SPACED ABOUT 2'-0" c. to c. & EACH ONE IS BRACED AS SHOWN.


Principal rafters spaced 6'-0" apart (made of six 1×6s bent & spiked together)
Intermediate rafters, spaced one between each pair of principals (made of four 1×4s bent & spiked together)
Rafters spaced 6 feet apart. Built-up of three 2×12s about 10 feet long; sawed to radius, lapped & spiked together
2×4 Purlins, cut in between rafters about 3'0" apart
1×4 Ribs, nailed to purlins at about 2'-0" c. to c. The sheathing is nailed to these
2×10 Brace, bolted to rafter above & to joist below
Two 2×6, Plate, 1×4 Nailer
Two 2×6 Plate
2×6 Stud
2×6 Stud
2×10 Brace, bolted to studs & rafter
Double studs under rafter
℄
Radius equals about two-fifths the width of the barn
BUILT-UP TYPE
LAMINATED TYPE
Double 2×6 studs under principal rafter
Floor joist
Floor joist

The Cross sections are 1/8-inch scale.
The details are approximately 3/4" scale perspectives.

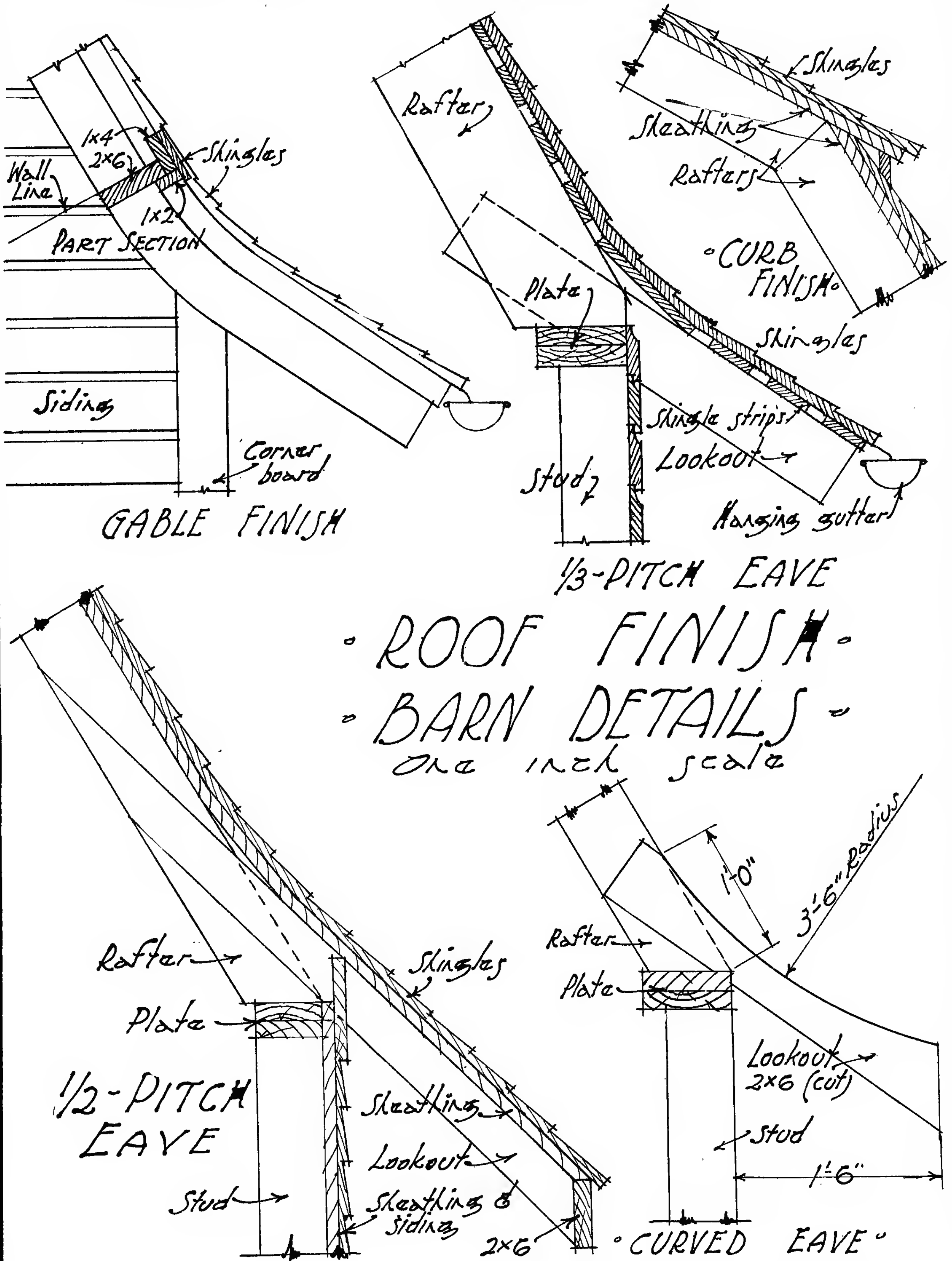
GOTHIC ROOF
· BARN DETAILS ·

DETAIL OF
BUILT-UP TYPE

DETAIL OF
LAMINATED TYPE

·ROOF FINISH·
·BARN DETAILS·

One inch scale



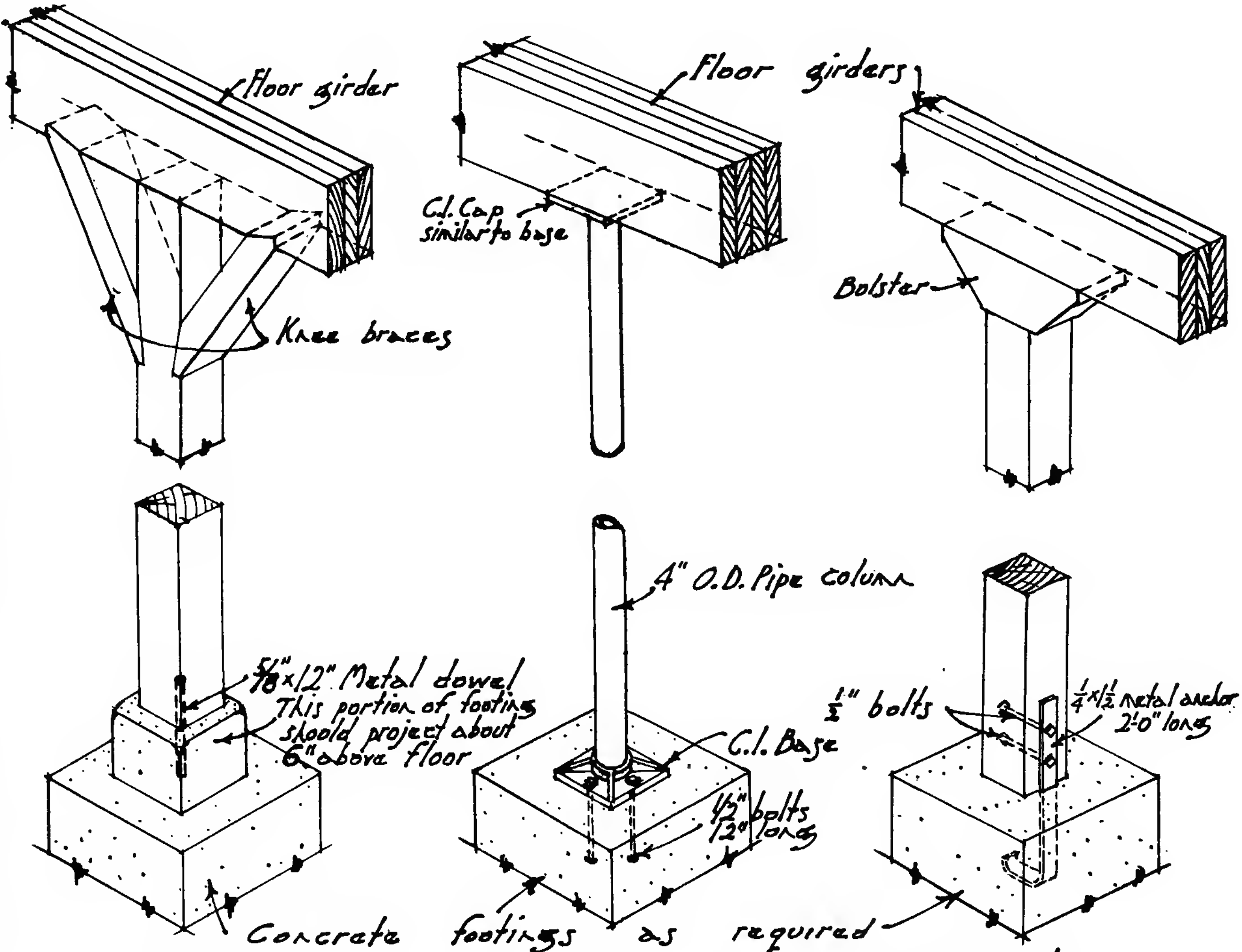
GABLE FINISH

1/3-PITCH EAVE

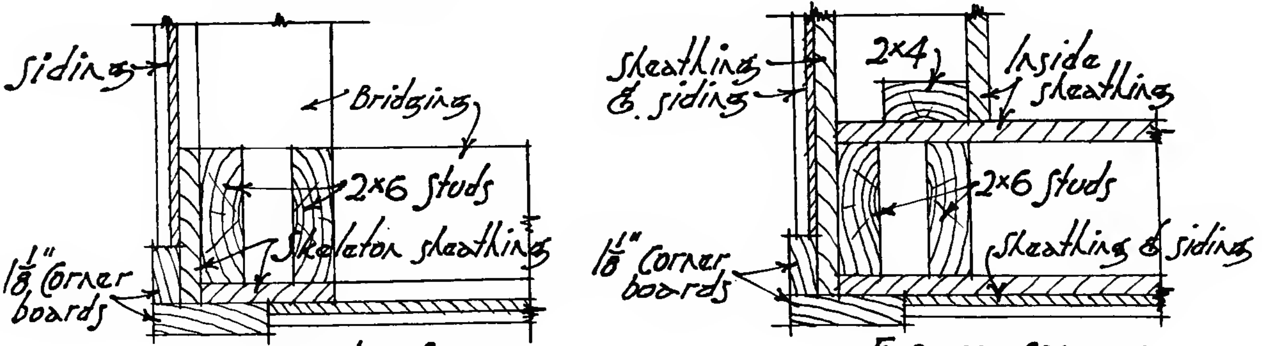
·CURB FINISH·

1/2-PITCH EAVE

·CURVED EAVE·



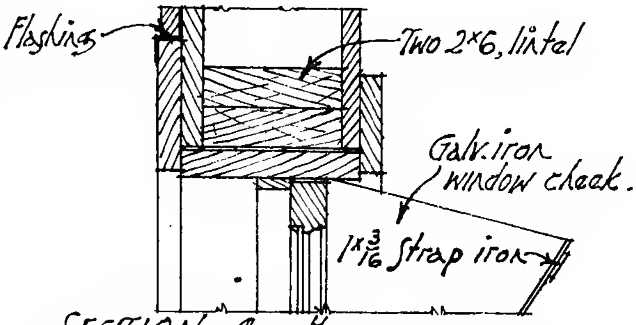
VARIOUS TYPES OF COLUMNS
Approximately 1/2-inch scale perspectives



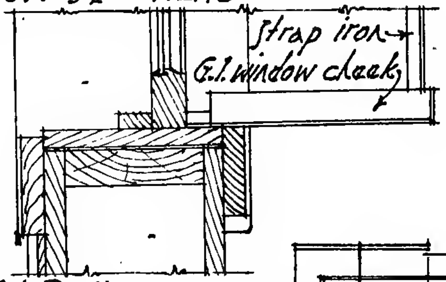
SECOND STORY
FIRST STORY.

CORNER FRAMING
1 1/2-inch scale

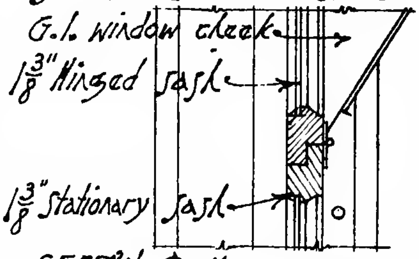
BARN DETAILS



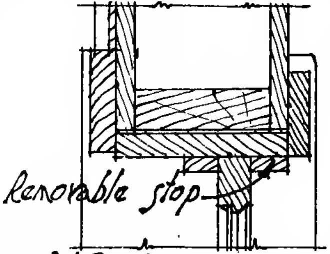
• SECTION A - HEAD •



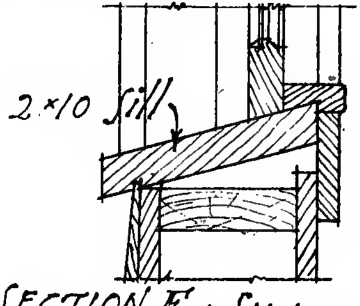
• SECT'N. B - UPPER JAMB •



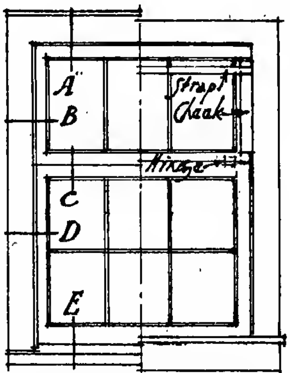
• SECT'N. C - MEETING RAILS •



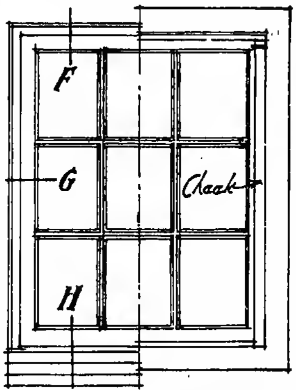
• SECT'N. D - LOWER JAMB •



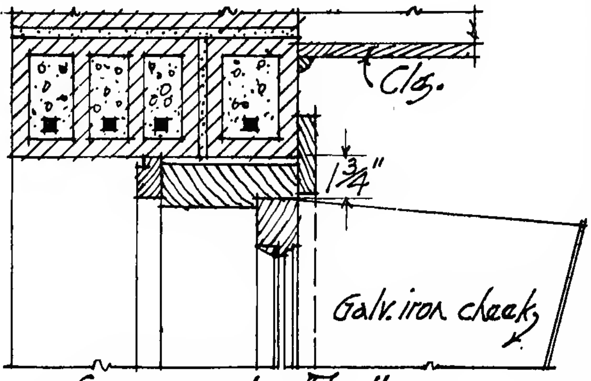
• SECTION E - SILL •



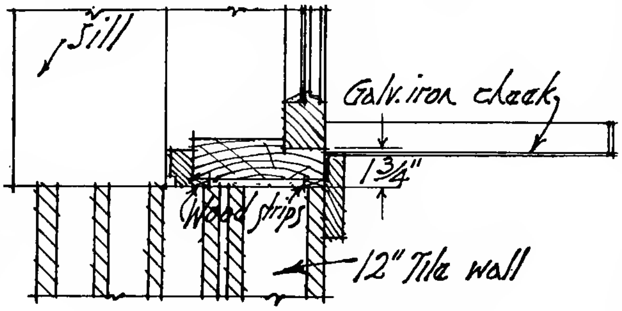
• ½ EXTERIOR • ½ INTERIOR •
• FOR FRAME WALLS •



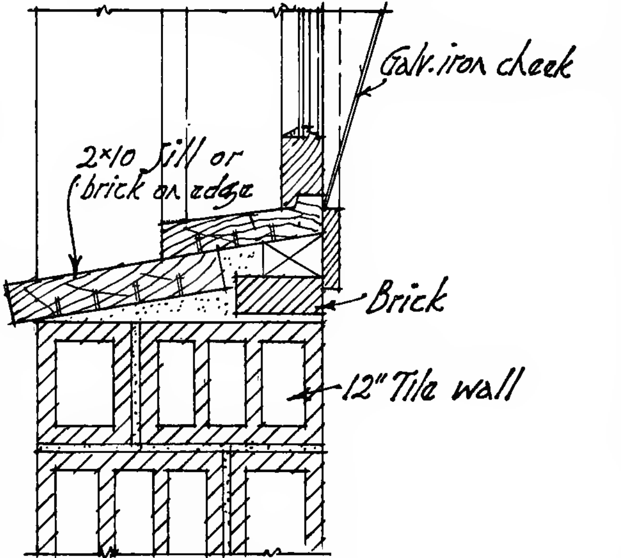
• ½ EXTERIOR • ½ INTERIOR •
• FOR TILE WALLS •



• SECTION F - HEAD •



• SECTION G - JAMB •



• SECTION H - SILL •

N.B. To fit the opening without cutting the tile, the sash should be either 2'-4", 2'-10" or 3'-4" wide & 4'-0" or 4'-6" high.

WINDOWS IN FRAME WALLS

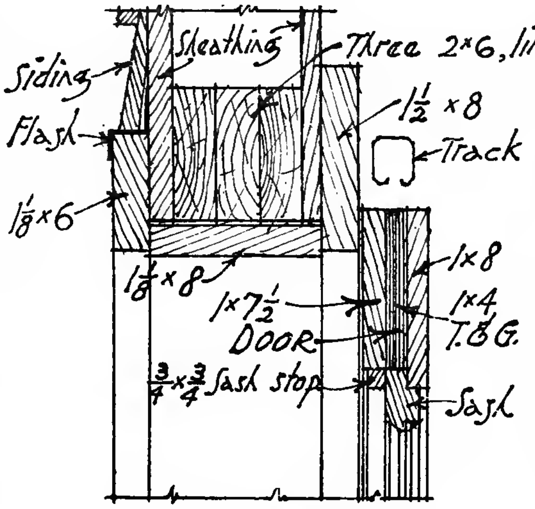
WINDOWS IN HOLLOW TILE WALLS

ADAPTED FROM DESIGNS BY U.S. DEP'T. OF AGRICULTURE, DIVISION OF RURAL ENGINEERING.

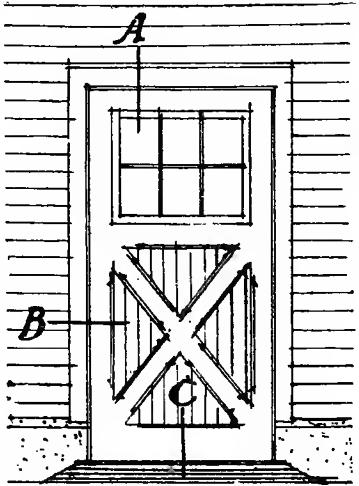
• BARN DETAILS •

ADAPTED FROM DESIGNS BY THE HOLLOW BUILDING TILE ASSOCIATION.

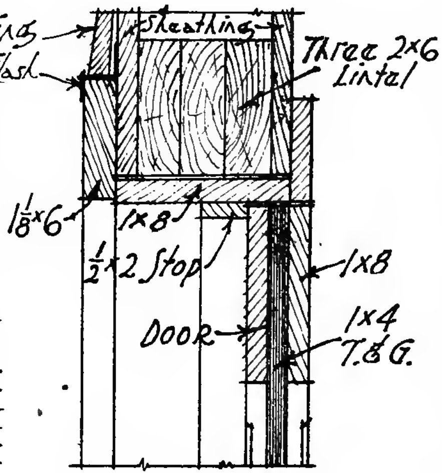
For sections, 1½-inch to 1 foot • SCALES • For elevations, 3/8-inch to 1 foot.



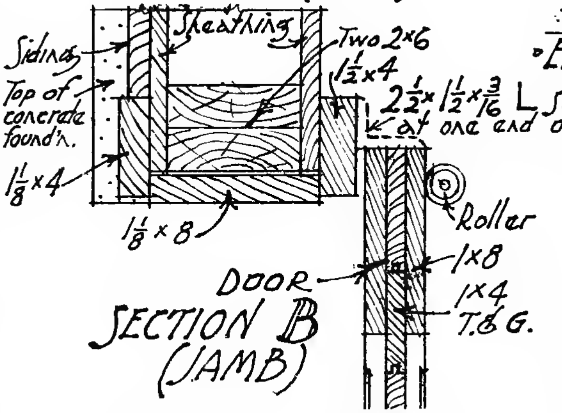
SECT'N. A (HEAD)



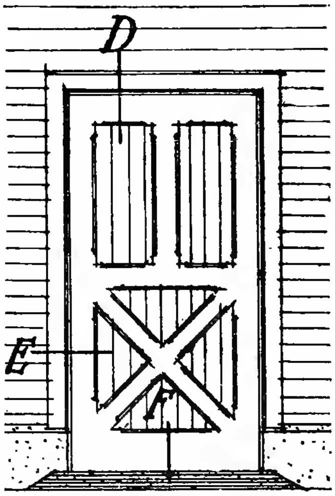
ELEV'N.-SLIDING DOOR.



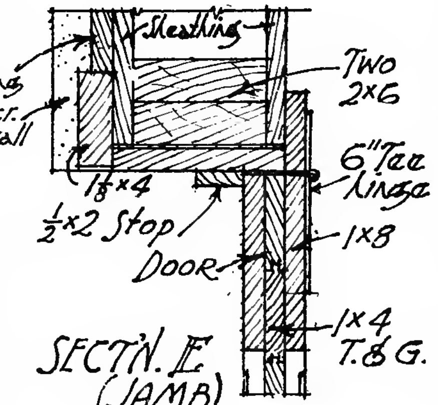
SECT'N. D (HEAD)



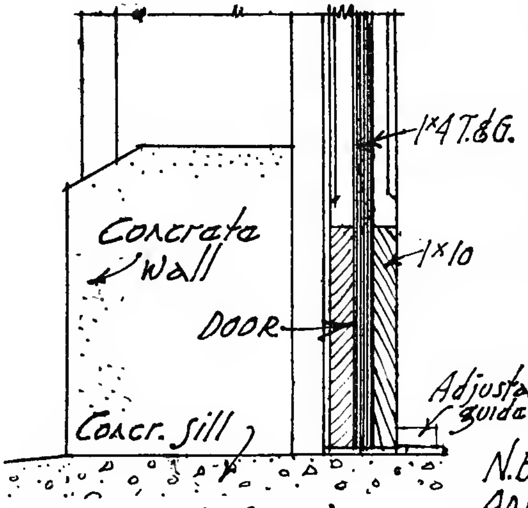
SECTION B (JAMB)



ELEV'N.-HINGED DOOR

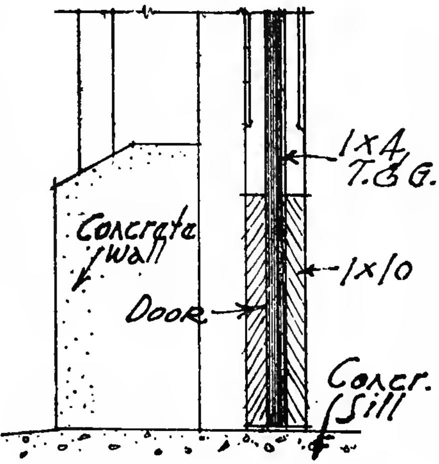


SECT'N. E (JAMB)



SECT'N. C (SILL)
SLIDING DOOR (EXTERIOR)

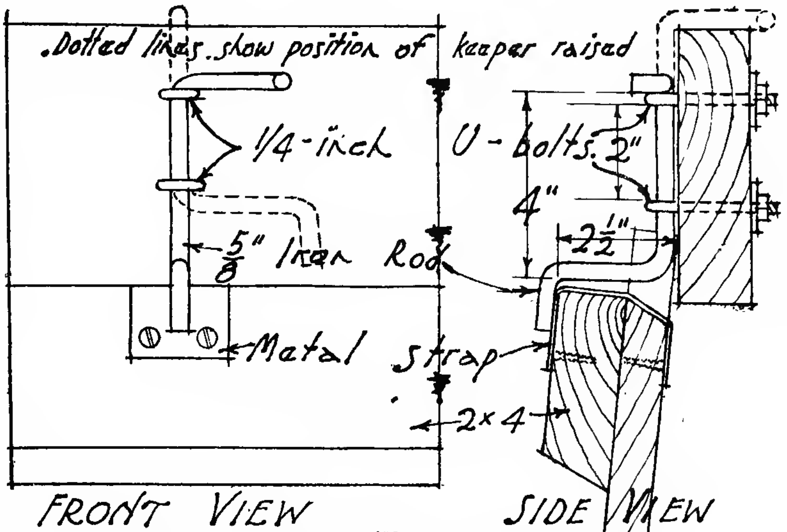
N.B. THESE DETAILS ARE FOR DOORS HUNG ON THE INSIDE.



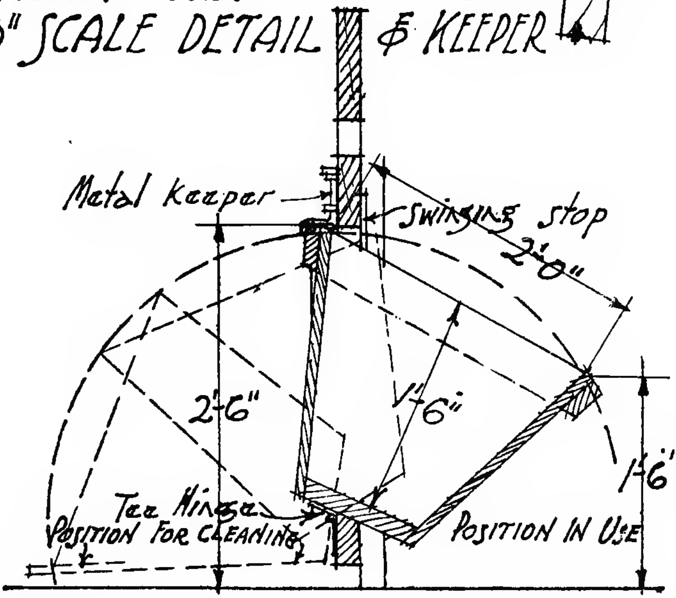
SECT'N. F (SILL)
HINGED DOOR (EXTERIOR)

· BARN DETAILS ·

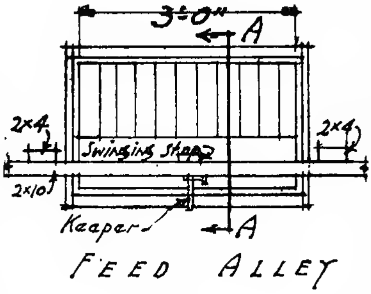
ADAPTED FROM DESIGNS BY U.S. DEP'T. OF AGRICULTURE,-DIVISION OF RURAL ENGINEERING
For details, 1½-inch to 1 foot · SCALE · For elevations ¼-inch to 1 foot.

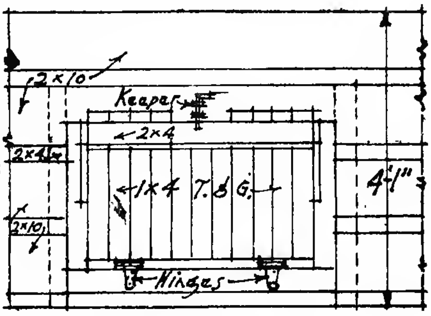


3" SCALE DETAIL OF KEEPER



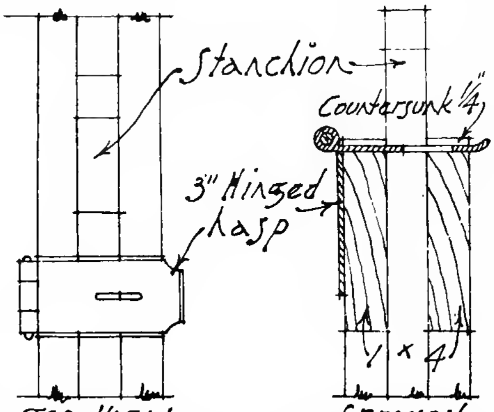
3/4" SCALE SECTION AS AT A-A



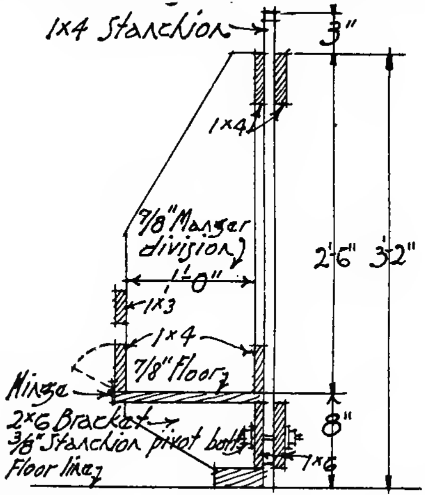


- PLAN - - ELEV'N. FROM FEED ALLEY -
- 3/8-inch scale -

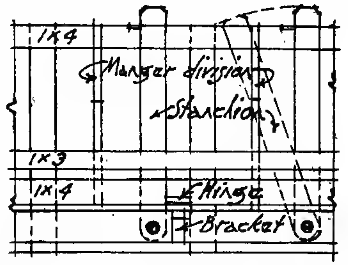
- TILTING MANGER FOR COW PENS -



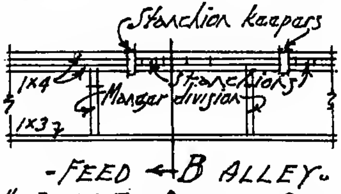
3" SCALE DETAIL OF STANCHION KEEPER



3/4" SCALE SECTION AS AT B-B



3/8" SCALE PART ELEVATION

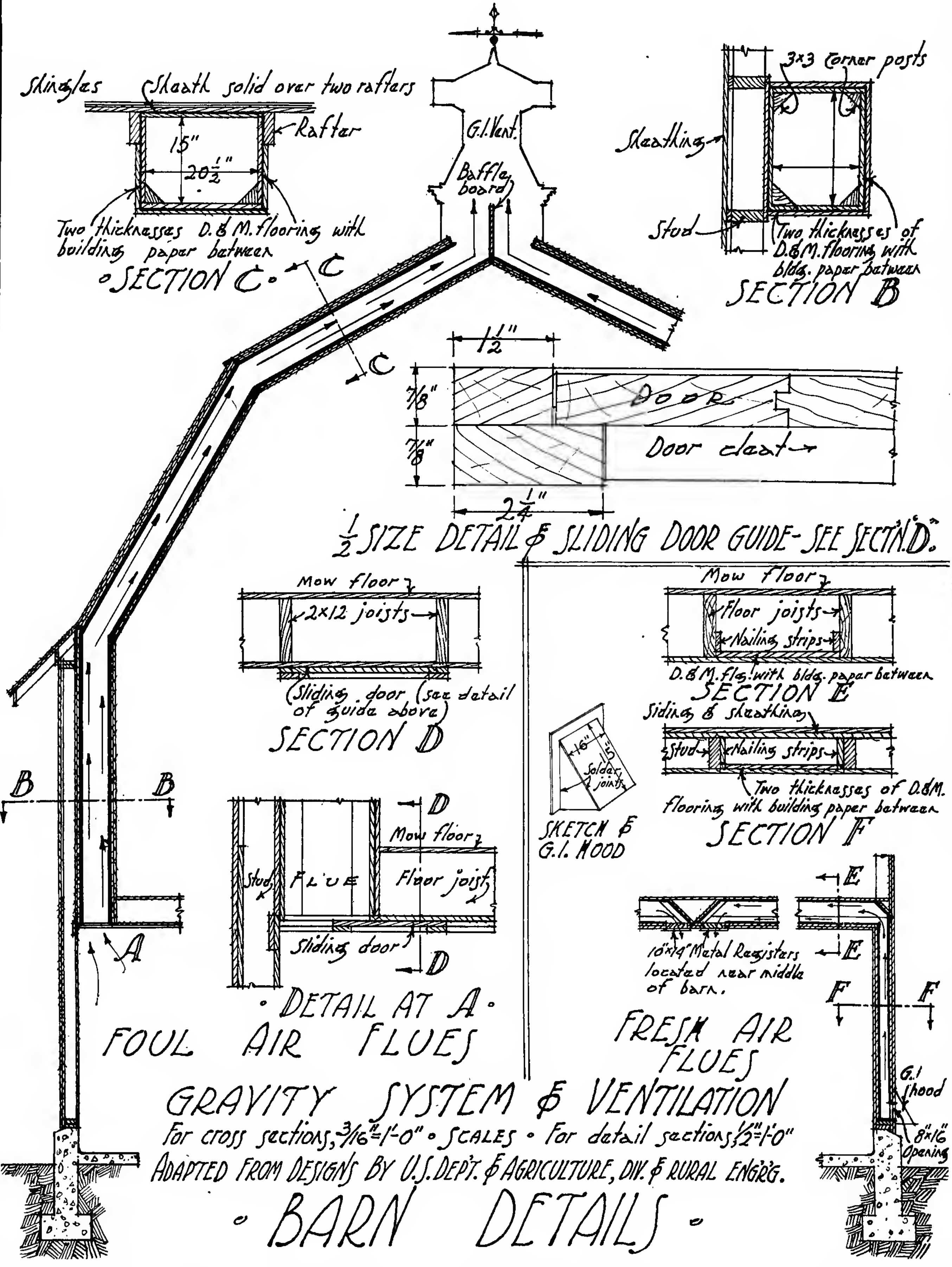


3/8" SCALE PART PLAN

- MANGER FOR CALF PENS -

- BARN DETAILS -

ADAPTED FROM DESIGNS BY U.S. DEP'T. OF AGRICULTURE; DIVISION OF RURAL ENGINEERING.



GRAVITY SYSTEM OF VENTILATION

For cross sections, 3/16"=1'-0" • SCALES • For detail sections 1/2"=1'-0"

ADAPTED FROM DESIGNS BY U.S. DEP'T. OF AGRICULTURE, DIV. OF RURAL ENG'R'G.

• BARN DETAILS •